Toward a Learning Society

Director's Biennial Report to Congress

May 2007





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INTRODUCTION

The Institute of Education Sciences (IES) within the U.S. Department of Education was authorized by the Education Sciences Reform Act of 2002 (ESRA). ESRA was signed into law in November 2002. The organization of IES was approved by the U.S. Department of Education in August 2003. Thus, at the time of this report IES is officially three and one-half years old.

The mission of IES, broadly characterized, is to provide rigorous evidence on which to ground education practice and policy and to encourage its use. Ultimately, the ability of IES to fulfill its mission will depend on education being embedded in a learning society—one that understands the fallibility of its best efforts, conceptualizes its programs and approaches as always in need of improvement, and commits to using every opportunity to learn from its labors.

ESRA requires that the Director of IES, on a biennial basis, transmit to the President, the National Board for Education Sciences, and the appropriate congressional committees, and make widely available to the public, a report containing

- a description of the activities carried out by and through the National Education Centers during the prior fiscal years;
- a summary of each grant, contract, and cooperative agreement in excess of \$100,000 funded through the National Education Centers during the prior fiscal years, including, at a minimum, the amount,

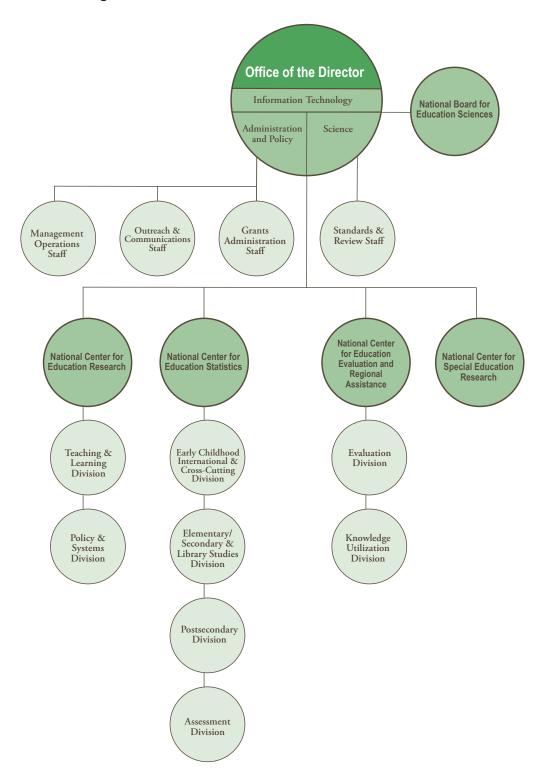
- duration, recipient, purpose of the award, and the relationship, if any, to the priorities and mission of IES;
- a description of how the activities of the National Education Centers are consistent with the principles of scientifically valid research and the priorities and mission of IES; and
- such additional comments, recommendations, and materials as the Director considers appropriate.

The Director's first biennial report was transmitted in March 2005. That report focused on the goals of IES and the progress that had been made in establishing the organizational capacity to further those goals. This report provides further information along those lines as IES marks its transition from an organization under construction to one that is fully formed and operational. However, the emphasis in this report is on *accomplishments* as the grants and contracts made by IES begin to bear fruit.

To that end, this report begins with highlights of accomplishments and findings from each of the four National Education Centers of IES (Centers). The organization chart in figure 1 on page 2 displays the names and management divisions of each Center.

Figure 1

IES Organization Chart



ACCOMPLISHMENTS OF THE CENTERS

National Center for Education Evaluation and Regional Assistance

Evaluations

The mission of the National Center for Education Evaluation and Regional Assistance (NCEE) is to

 conduct evaluations of federal education programs administered by the Secretary;

- provide research-based technical assistance to educators and policymakers;
- support synthesis and wide dissemination of the results of evaluation and research; and
- encourage the use of scientifically valid education research and evaluation throughout the United States.

The responsibility of NCEE for evaluating the impact of programs administered by the U.S. Department of Education is carried out using methodologically rigorous designs applied to large samples of students and schools. Twenty-four large evaluation studies are underway, as described in table 1.

Table 1 – Current NCEE Evaluation Studies		
Study	Purpose	
Early Reading First	Examine the effectiveness of the early language and literacy programs funded by ERF on the literacy skills of preschool children	
Even Start Classroom Literacy Intervention and Outcomes (CLIO)	Evaluate the effectiveness of two promising models that integrate early childhood and parenting education on literacy skills of Even Start children	
Closing the Reading Gap	Examine the effectiveness of remedial reading programs for 3rd and 5th grade students	
Supplemental Literacy Interventions	Evaluate the effectiveness of two promising supplemental literacy programs for ninth graders	
Reading First	Assess the effectiveness of Reading First on reading instruction and student achievement	
Reading Comprehension	Examine the effectiveness of promising reading comprehension programs in fifth grade	
Teacher Preparation Models	Evaluate the effectiveness of different levels of intensity and content of teacher preparation offered by traditional and alternative routes of certification	
Teacher Induction	Evaluate the effectiveness of two promising teacher induction programs on teacher retention, teacher practices and student achievement in elementary schools	

	tion Studies Continued
Study	Purpose
Professional Development in Early Reading	Evaluate the effectiveness of two different professional development methods on changes in teacher practice and student achievement
Preparation of Teachers in Scientifically Based Reading	Assess the preparation of new teachers by schools of education in teaching scientifically based reading
Professional Development in Middle School Math	Evaluate the effectiveness of promising approaches to enhance the content knowledge and pedagogical skills of middle school teachers in mathematics
DC Opportunity Scholarship Program	Evaluate the effectiveness of the scholarship program on student achievement and other outcomes
Educational Technology	Evaluate the effectiveness of 17 educational technology interventions in early reading and middle school mathematics
Academic Instruction for After-School Programs	Evaluate the effectiveness of two promising after-school programs in reading and mathematics
Math Curricula	Evaluate the effectiveness of mathematics curricula in early elementary school grades on student achievement
Magnet Schools	Evaluate the effectiveness of magnet schools on academic achievement in elementary schools
English Language Acquisition	Examine the effectiveness of high quality ELL models of structured immersion, transitional, and two-way bilingual education
Charter Schools	Evaluate the effectiveness of charter middle schools on student achievement
School-Based Violence Prevention	Evaluate the effectiveness of a promising schoolwide program to reduce school violence in middle schools
Evaluation of Student Mentoring Programs	Evaluate the effectiveness of U.S. Department of Education-funded programs on school engagement, and on both positive and negative behaviors
Comprehensive Technical Assistance Centers	Evaluate the quality, relevance, and usefulness of products and services provided by the Centers
Mandatory Drug Testing	Evaluate the effectiveness of mandatory drug testing programs on reducing student drug use in high schools
Adult Education for ESL Students	Evaluate the effectiveness of an enhanced version of adult literacy instruction that is based on the principles of scientifically based reading
Upward Bound	Evaluate the effectiveness of Upward Bound on higher-risk students

The number, methodological rigor, and objectivity of these evaluations represent a remarkable shift from the days when the U.S. Department of Education had just one rigorous evaluation underway (see table 2), while the Administration for Children and Families in the U.S. Department of Health and Human Services (HHS) led the way with 12 large-scale experimental studies of welfare policies. The studies by HHS had a substantial impact on welfare reforms that were enacted in 1996. The IES studies could be comparably significant.

A number of evaluation reports that gained wide attention were released by NCEE during 2005 and 2006, including the three-volume report on the National Assessment of Title I. This report evaluated the implementation of the largest federal program to assist state and local education agencies in educating children from low-income families, and examined the impact of remedial reading programs that are

Table 2

Of 84 program evaluations and studies planned by the U.S. Department of Education for fiscal year 2000, just one involved a randomized field trial.

Purpose of the study	Number
Randomized field trial	1
Survey of need	51
Program implementation/ monitoring	49
Non-randomized impact evaluation	15
Total	116*

*Studies could have more than one primary purpose.

Source: Robert Boruch and Frederick Mosteller, eds., *Evidence Matters* (Brookings, 2001).

frequently purchased with Title I funds. It included important findings, such as:

- O State and district notification of parents of the availability of school choice in schools failing to meet annual yearly progress targets was often too late to enable parents to choose a new school before the start of the school year. Almost half (49 percent) of districts in the 2004-05 school year notified parents after the school year had already started, and in these districts this notification occurred, on average, five weeks after the start of the school year.
- Remedial reading interventions for struggling early readers brought significant reductions in the achievement gap for third-grade students in phonemic decoding, word reading accuracy and fluency, and reading comprehension.

The newly released March 2007 report on the Effectiveness of Reading and Mathematics Software Products: Findings from the First Student Cohort is the first rigorous national study of the effectiveness of widely used teaching software products. It focuses national attention on the impact of competitively selected educational technologies in reading and mathematics that are intended to improve student achievement.

The study was to determine whether students had higher achievement when teachers used selected software products designed to support learning in reading or mathematics. The study implemented 15 software products in elementary schools across the nation. Classrooms were randomly assigned to implement the instructional software or to continue business as usual. Results can be obtained online at: http://ies.ed.gov/ncee/pubs/20074005.

The Regional Educational Laboratories

The Regional Educational Laboratory (REL) program has been funded for over 40 years. Under ESRA, the RELs have the primary responsibility for carrying out IES's mission of providing research-based technical assistance to educators and policymakers. As required by ESRA, a revamping of the REL program was instituted with the award of 10 contracts in early 2006. Under the new contracts, the RELs are charged with providing technical assistance to policymakers and practitioners on the meaning and use of scientifically based research findings. The RELs also are required to conduct research to respond quickly to needs expressed by educators and policymakers in their region. These fast response projects take from 3 months to no more than 12 months to complete. Examples from the first fast response projects demonstrate how these efforts are organized around specific regional questions.

- How is the new Utah K-3 Reading Improvement Program faring? Utah's Superintendent of Public Instruction asked REL West to review the activities under way during the first two years of the state's K-3 initiative. The report provides detailed school performance data for districts starting the program, and districts not yet starting the program. It helped Utah "see" exactly what has happened so far. REL West has been asked to continue the analysis another year.
- What are the Northwest states doing to support schools in need of improvement?
 Using state reports and comments by leaders of state education agencies, REL Northwest looked at the different ways five states structured their approaches to schools in need of improvement in 2006. All five states—Alaska, Idaho, Montana, Oregon, and

- Washington—are using external facilitators to work intensively with schools and all use professional development. Little is known yet about how well strategies are working, especially in the varied school conditions.
- What professional development interventions are available in Georgia to improve middle and high school reading? Georgia, like many states and districts, is concerned about adolescent literacy outcomes. The state's concern led to the development of a new set of performance standards for reading across the curriculum. These new standards represented a significant challenge for content area teachers and, as a result, the Georgia Department of Education was interested in finding interventions to support teachers' efforts to align classroom instruction and assessment with the standards. REL Southeast identified seven interventions that had an appropriate focus. Studies of these interventions were examined and summarized, providing a useful guide to schools.

A criticism that has been leveled at the RELs under prior contracts is that there was substantial variability across the RELs in the quality of work, including the standards used in synthesizing and disseminating the results of research. NCEE is providing strong technical support to all 10 labs through a new peer review process. Major project plans and draft final products are subject to external peer review. NCEE also provides technical assistance to the RELs to assure that they carry out work that is consistent with IES standards for scientifically valid research and evaluation. An added benefit of this intensive technical outreach by NCEE is that the RELs are partners in IES's efforts to turn education policy and practice into a field that relies on objective evidence within a culture of learning.

The What Works Clearinghouse

The What Works Clearinghouse (WWC) synthesizes the best evidence of the effectiveness of education programs, policies, and practices and reports these findings through its website.

Questions about the effectiveness of programs in achieving desired outcomes are best addressed through randomized field trials in which a lottery is used to select participants. By comparing outcomes for those who won the lottery with those who did not, researchers are assured that any differences in outcomes are due to assignment to the program being evaluated. All other differences between participants and non-participants are evened out due to the laws of chance. Other methods for evaluating the effectiveness of programs, such as comparing outcomes for participants who volunteer for a program with outcomes for demographically similar participants who do not volunteer, are fraught with interpretative challenges. For example, researchers cannot be sure that volunteers are not more motivated to improve than demographically similar non-volunteers. Thus any differences in outcomes favoring participants might be due to differences in the motivation of the two groups being compared rather than the effects of participation in the program being evaluated.

In search of research in education that employs randomized field trials, the WWC has had to grapple with a large number of studies on the effectiveness of education programs and practices that have a variety of methodological weaknesses. It has found only a very small number of studies that have the methodological rigor and generalizability of the large-scale evaluation studies that have been launched by IES (described in table 1). Had the WWC chosen to ignore all but the methodologically

strongest studies, the result might have been called the "Nothing Works Clearinghouse."

The decision to try to extract valuable information from flawed studies necessitated a large investment by the WWC in the development of technical standards and procedures for separating wheat from chaff. Examples of vexing technical issues include: when to accept and how to weight the results from so-called quasi-experiments (field trials that did not use a lottery to form groups of participants and non-participants and thus cannot assure the equivalence of the groups); when to accept and how to report results from studies that find differences between outcomes for participants and non-participants that are large enough to be educationally significant but that are not statistically significant because the study was too small; and how to handle studies that are well-designed but employ the wrong statistical analysis in reporting results.

The research and development by the WWC took time and resources, but it has paid off in transparent, rule-based evidence standards, rating schemes, and reporting systems.

The WWC is now providing the education community with trusted information on what works.

- To date, the WWC has produced and released 59 intervention reports across the topics of beginning reading, character education, dropout prevention, early childhood education, English language learning, and elementary and middle school mathematics. Of these 59 interventions, the WWC determined that 44 demonstrated positive or potentially positive effects on student outcomes.
- The results of the character education review provide an example of the beginning and end of the WWC review process:

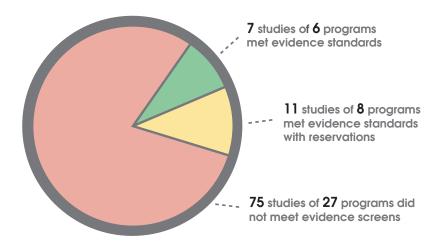
- The WWC identified experts to lead the character education review. They, in turn, developed a protocol to guide the search of the literature, for example, by defining character education.
- The plan to review studies of character education was announced to the field, and developers and researchers were invited to submit studies they believed were relevant.
- Over 70 character education programs were submitted to or identified by the WWC. Forty-one school-based programs met the WWC definition of character education and were eligible for review.
- WWC collected 93 studies on these 41 programs, with results displayed in figure 2.

- The WWC has also generated much discussion within the education and research communities and has become the leading authority on evidence-based practices in education.
 - The WWC has been featured on more than 75 high-traffic websites of education agencies; by major education organizations, national research organizations, schools of education, education technical assistance providers, parenting organizations, education developers and vendors; and in the media.
 - The number of visits to the WWC website in 2006 was approximately 7.5 million. Traffic to the website is increasing dramatically. According to WebTrends, the WWC website had 517,373 page views in October 2005.

Figure 2

WWC identified 93 studies of 41 programs

Thirteen programs had studies that met WWC standards with or without reservations. A single program could have studies in both categories.



For September 2006 that number had more than doubled to 1,072,626.

ERIC

ERIC, the Education Resources Information Center, is the world's largest digital library of education research and information. ERIC provides free internet-based access to bibliographic records of journal and non-journal literature indexed from 1966 to the present. IES initiated a substantial redesign of ERIC when the contracts for the existing ERIC system expired in December 2003. The redesign was intended to bring ERIC fully into the Internet age and to create efficiencies and better service in a system that was operating through 19 separate contracts and a far-flung system of 16 clearinghouses. Each clearinghouse was working independently to catalog and disseminate information and was typically spending more than half its budget on activities other than the electronic library. At the time, the proposed redesign of ERIC created considerable controversy. For example, the Washington-based American Educational Research Association wrote that, "We have substantial concerns that the proposed 'new' ERIC will simply dismantle the system." IES responded by reiterating that its fundamental goal for ERIC was to increase coverage and enhance access. Enough time has passed to take stock of ERIC.

- In 2003, 350 journals were indexed in their entirety. Currently, about 500 journals are indexed comprehensively. Another 150 journals are indexed selectively.
- In 2003, ERIC materials such as microfiche files and electronic databases were sold to libraries, for-profit vendors, and individuals. Now all ERIC materials and services are free.
- In 2003, a large portion of the ERIC library was available only on microfiche.

Now ERIC has digitized all of its holdings with the exception of about 340,000 documents that cannot be converted due to the specific language of the permission forms under which access to the documents was originally granted. ERIC is contacting copyright holders for permission to disseminate the full text of these older ERIC materials online.

"The ERIC website reached a new high in its customer user base in 2006, with approximately 62 million separate searches."

- In 2003, full text of indexed articles was seldom available. Now 100,000 full text articles are available in PDF format at no charge, and full text of most of the indexed materials published from 2004 forward is available through links to other sources, including publishers' websites. A pilot project with 10 university libraries allows users at one of those institutions to link to documents in their own library through ERIC.
- The ERIC website reached a new high in its customer user base in 2006, with approximately 62 million separate searches.
- In 2003, there was typically a delay of six to nine months between information being published and becoming available in the ERIC system. As of mid-May 2003 none of the U.S. Department of Education's 2003 publications was available in ERIC. Now the latency between an article being published in

one of the journals indexed by ERIC and its appearance in ERIC is about two months, and the latency for U.S. Department of Education publications is about one month.

- In 2002, usability tests conducted on the websites of the 16 separate ERIC clearinghouses documented user confusion. ERIC now sports a unified, highly functional web design with advanced user functions.
- In 2003, IES spent \$10.5 million on ERIC. In 2006, for \$8.1 million, ERIC served many more users, provided comprehensive indexing of 42 percent more content, provided full-text access to virtually all recent content, charged no fees, and provided a unified highly functional web interface to its collections.

National Center for Education Statistics

Reliable data are critical to informed decision making for improving education in America. Indeed, the initial mission of the first Department of Education, created in 1867, was to "collect...such statistics and facts as shall show the condition and progress of education in the several States and territories." While today's education system and the task of assessing its condition and progress are much more complex, the National Center for Education Statistics (NCES) continues to carry out this core function. NCES collects statistical data on all levels of education from preprimary through graduate study, including adult education. The education policy issues addressed by its data collections are equally wide ranging, including enrollment trends, access to postsecondary education, the academic achievement of students, and comparisons of the U.S. education system with those in other countries.

Statewide Longitudinal Data Systems

In November 2005, NCES awarded grants to 14 states to create or enhance statewide longitudinal data systems in order to efficiently and accurately manage, analyze, disaggregate,



and use individual student data from public schools. A second grant competition will result in awards to a substantial number of additional states in 2007.

Longitudinal data systems enable states and school districts to look at changes in student achievement from year to year, or growth. Without the ability to measure growth in academic performance for individual students, districts and states can examine only static aggregated data on performance at one point in time. But two schools with identical average achievement scores for their students at the end of a particular year may be dramatically different in performance if one school served students with substantially lower academic achievement than the other school at the end of the previous year. One school will have engendered more growth in achievement than the other. The statewide longitudinal data systems grants are critical in enabling states to collect and use such growth data for management, research, and reporting functions.

Many systems also include data on the preparation and training of teachers and on programs used in schools and classrooms. These rich data will allow policymakers, educators, and researchers to evaluate the effectiveness of various initiatives and to use data for teaching and learning. For example, one state is using its longitudinal data system to provide detailed feedback from statewide student assessments to teachers, principals, and districts to support their instructional decisions. Another state is using its system to examine the effects of changes in promotion policies.

How do Students Pay for Postsecondary Education?

The most recent National Postsecondary Student Aid Study (NPSAS) survey was conducted in 2003-04 and included approximately 80,000 undergraduates enrolled at approximately 1,400 postsecondary institutions. Also included were about 11,000 graduates and 1,000 first-professional students. The study is one of the most important sources of information about the cost of postsecondary education in the United States.

A recent report from that study demonstrated a substantial divergence between what colleges say is the cost of attendance (often called the "sticker price") and, given the availability of grants and loans, the price that students pay to attend a postsecondary institution for a year (the "access" price).

The total price of attendance (tuition plus room and board and other expenses) for fulltime undergraduates in 2003-04 was \$10,500 at public two-year institutions; \$15,200 at public four-year institutions; and \$28,300 at private, not-for-profit four-year institutions; and \$20,300 at private for-profit institutions. (See figure 3 on page 12.) But the access price of attending these schools was much lower: After subtracting all financial aid (including loans), the average out-of-pocket access price of attendance for all full-time undergraduates in 2003-04 was \$7,400 at public two-year institutions; \$8,500 at public four-year institutions; \$13,900 at private, not-for-profit four-year institutions; and \$10,100 at private, for-profit institutions.

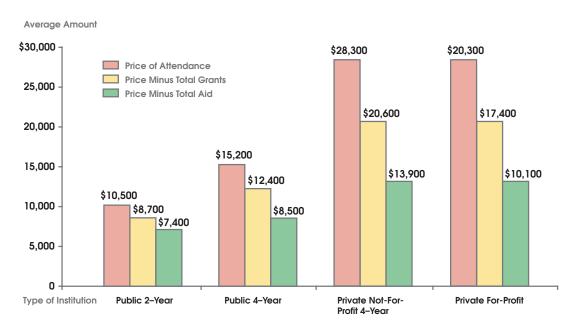
The "discount rate" was higher for low-income students: For full-time, low-income, dependent undergraduates the average out-of-pocket net price of attendance was \$6,000 at public two-year institutions; \$5,600 at public four-year institutions; and \$9,200 at private, nonprofit four-year institutions.

The High School Transcript Study and NAEP Assessments at Grade 12

The National Assessment of Educational Progress (NAEP) High School Transcript Study

Figure 3

The Net Price of Attendance and Federal Education Tax Benefits in 2003-04



Note: Full-time/full-year students were enrolled full time for 9 or more months from July 1, 2003 to June 30, 2004. The price of attendance includes tuition and fees charged by the institution and all other expenses related to enrollment such as books and supplies, room and board, transportation, and other personal living expenses. Grants include any grants, scholarships, or tuition waivers from federal, state, institutional, or private sources, including employers. Total aid includes grants, loans, work-study, and other aid, including federal Parent Loans to Undergraduate Students (PLUS), but not federal education tax benefits. Average amounts are for all students, including those who received no financial aid. Estimates include postsecondary students in Puerto Rico.

Source: U.S. Department of Education, National Center for Education Statistics, 2003-04. National Postsecondary Student Aid Study (NPSAS:04).

provides information on course offerings and course-taking patterns in the nation's secondary schools and the relationship of student course-taking patterns to achievement at grade 12 as measured by NAEP.

The 2005 High School Transcript Study reveals a pattern of increasing credits earned by high school graduates over the last 15 years. By 2005, graduating seniors had earned over three credits more than their counterparts in 1990. Graduating seniors also earned more credits in each of four core course fields (English, social studies, mathematics, and science) in 2005 than in 1990. At the same time, they had completed more challenging curriculum levels: 68 percent of graduates in 2005 had completed a curriculum at or above the standard level—an increase of 28 percentage points over the graduates in 1990. Increases in students

completing at least this level of curriculum were seen for White, Black, Hispanic, and Asian students.

Despite these positive trends in credits earned and the level of curriculum completed by graduating seniors, results from the NAEP assessments in reading and science have not shown comparable increases in the overall performance of twelfth-graders. Average scores in reading were lower in 2005 than they were in 1992. Twelfth-grade average scores in science also declined between 1996 and 2005.

NAEP Mathematics Results at Grades 4 and 8

Fourth-graders across the nation made gains on the NAEP mathematics assessment between 2003 and 2005, resulting in the highest average score for fourth-graders since this assessment was first administered in 1990. Increases were also seen in the percentage

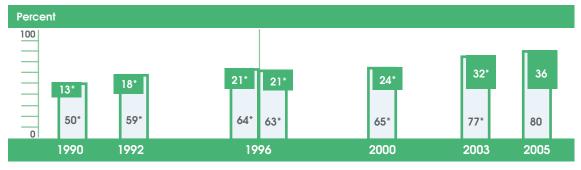
of students performing at or above the Basic achievement level in mathematics. In 1990, 50 percent of the nation's fourth-graders performed at or above Basic. By 2005, 80 percent of students in the fourth grade were performing at or above this level. (See figure 4.)

Gains were seen between 2003 and 2005 for all racial/ethnic groups. For White, Black, and Hispanic students, these gains resulted in the highest average score since 1990. At the same time, score gaps between White fourth-graders and their Black and Hispanic peers were narrowing. By 2005, the score gap between White and Black students was narrower than it had been in any previous assessment year.

Eighth-graders also demonstrated progress between 2003 and 2005, posting their highest average score since 1990. The percentage of eighth-graders at or above Basic in mathematics increased from 52 percent in 1990 to 69 percent in 2005. The disaggregated data showed that gains were made by White,

Figure 4

Percentage of students at or above *Basic* and at or above *Proficient* in mathematics, grade 4: Various Years, 1990-2005



Accommodations not permitted

Accommodations permitted

^{*} Significantly different from 2005. At or above Basic

Black, and Hispanic students. Each of these three student groups attained an average score in 2005 that was higher than in any previous assessment year.

The Poor Performance of U.S. Students on International Assessments

International assessments of mathematics and science have shown that U.S. 15-year-olds are typically outperformed by most of their international peers from Organization for Economic Cooperation and Development (OECD)-member countries. For example, U.S. 15-year-olds had lower average mathematics literacy scores than the OECD average and lower scores than their peers in 20 of the other 28 OECD countries participating in 2003.

A recent comparison of 2003 data from the Program in International Student Assessment (PISA) explores the extent to which variations in student backgrounds across countries are associated with the reported outcomes of international studies. The study focuses on data from 20 countries that are considered to be the most developed (based on the World Bank High Income Group).

While the U.S. student population is more diverse than student populations in certain Asian countries such as Japan and Korea, the study found that student populations in other countries are often quite similar to the U.S. student population on the distribution of social and economic factors that might affect performance. For example, 48 percent of 15-year-old students in the United States reported having at least one parent who had a college degree or a postsecondary vocational qualification. Eleven of the 19 other countries in the study had a smaller percentage of students with postsecondary-

educated parents compared to the United States. The data also show that 9 percent of U.S. 15-year-olds did not speak English (the language of the test) at home. Of the 19 other countries, 6 had a higher percentage of 15-year-olds who did not speak the language of the test at home.

In short, the cross-national comparisons of student populations and their social and economic contexts show that the mediocre performance of U.S. students cannot be attributed primarily or exclusively to the fact that the United States serves a more economically and culturally diverse student population.

National Center for Special Education Research

In December 2004, Congress reauthorized the Individuals with Disabilities Education Act (IDEA) and in doing so authorized the National Center for Special Education Research (NCSER) as part of IES. NCSER began operation on July 1, 2005. As specified in PL 108-446, the mission of NCSER is to

- sponsor research to expand knowledge and understanding of the needs of infants, toddlers, and children with disabilities in order to improve the developmental, educational, and transitional results of such individuals;
- sponsor research to improve services provided under, and support the implementation of, the Individuals with Disabilities Act (20 U.S.C. 1400 et seq.); and
- evaluate the implementation of the effectiveness of the Individuals with Disabilities Act in coordination with the National Center for Education Evaluation and Regional Assistance.

Organizational Accomplishments

In the short one and one-half years of its existence, NCSER has devoted considerable energy to organizing, staffing, and putting the mechanisms in place to carry out its responsibilities. The accomplishments include:

Staffing—

A commissioner of special education research was recruited and seven staff members were hired or transferred into NCSER.

Collaboration and Outreach—

Consistent with the statutory language of PL 108-446, the Commissioner of NCSER developed and signed a memorandum of agreement with the Assistant Secretary of the Office of Special Education and Rehabilitative Services (OSERS) on research collaboration.

NCSER organized two large meetings for representatives from more than 90 special education or disability advocacy, policy, and research organizations to exchange views on special education research.

Grant Making—

NCSER conducted grant competitions on 12 different special education research topics in FY 2006 that produced 252 applications and resulted in awarding 28 grants.

Evaluations—

NCSER launched the Congressionally mandated evaluation of the IDEA Paperwork Reduction Act, which includes a provision to allow multiyear individual education plans for students with disabilities.

In general, NCSER and IES leadership has emphasized creating more focus in research

investments in special education, increasing the methodological standards for funded research, expanding the pool and capacity of the research community that does research in special education, creating strong links between research in special education and research in regular education, and collaborating with OSERS to ensure that their technical assistance centers disseminate research findings that meet IES's standards.

Longitudinal Studies

NCSER managed two longitudinal studies designed to examine at a national level the experiences of children with disabilities and the services they receive.

- The National Longitudinal Transition Study-2 (NLTS2) is intended to provide a national picture of the experiences and achievements of students in special education during high school and as they transition from high school to adult life. NLTS2 involves a nationally representative sample of 11,276 students who were 13 to 16 years old and receiving special education services in December 2000, when the study began. NLTS2 is designed with many of the same features of the original National Longitudinal Transition Study (NLTS, 1987-1993) in order to identify the nature and extent of changes in the special education services provided to high school students and in their post-school achievement in the last decade. Significant recent findings include:
 - O The proportion of students with disabilities who left school with a high school diploma or certificate of completion rose from 53.5 percent in 1987 (NLTS) to 70.3 percent in 2003 (NLTS2), while the proportion of students who dropped out fell from 46.5 percent to 29.7 percent.

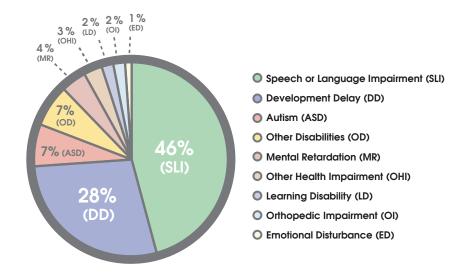
- O During this same time, the rate of attendance in postsecondary education doubled from 14.6 percent in 1987 to 31.9 percent in 2003. The greatest growth was observed in two-year colleges, where the rate of attendance increased almost sevenfold from 3.6 percent in 1987 to 20.8 percent in 2003.
- O Students with disabilities still have significant deficits in academic achievement. NLTS2 administered a student assessment that included subtests in language arts, mathematics, science, and social studies. On these subtests, a standard score of 70 is two standard deviations below the mean, indicating significantly sub-average performance. Among the general student population, approximately 2 percent scored 70 or lower. In contrast, among the students with disabilities in the
- NLTS2 sample, from 14 percent to 27 percent (depending on the subtest) scored below 70. Scores were lowest in passage comprehension, and for students with mental retardation, multiple disabilities, deaf-blindness, or autism.
- The Pre-Elementary Education Longitudinal Study (PEELS) is a six-year study that examines the experiences and services of a nationally representative sample of 3,100 preschool children with disabilities receiving special education services and follows them through the early elementary school years. (See figure 5.)

Findings from PEELS include:

 Nearly half (46 percent) of preschoolers with disabilities were identified as having a speech or language impairment as their

Figure 5

PEELS Profile of Primary Disabilities Among Children Ages 3-5 with Disabilities: School Year 2003-04



- primary disability, and 28 percent were identified as having a developmental delay as their primary disability.
- Preschoolers identified with disabilities were disproportionately male, 70 percent. Two-thirds (67 percent) were White, 22 percent Hispanic, and 11 percent Black.
- O The vast majority of children with disabilities, ages three through five, who received special education services received speech or language therapy (93 percent). Other common services included special education in school (42 percent), occupational therapy (34 percent), physical therapy (21 percent), and tutoring for learning problems (19 percent).

National Center for Education Research

The National Center for Education Research (NCER) supports research that contributes to improved academic achievement for all students, and particularly for those whose education prospects are hindered by conditions associated with poverty, minority status, family circumstance, and inadequate education services. Although many conditions may affect academic outcomes, NCER supports research on those that are within the control of the education system, with the aim of identifying, developing, and validating effective education programs and practices.

NCER primarily funds research conducted by individuals and teams of investigators at universities and other nonprofit research organizations. NCER has developed focused research competitions that target topics that are IES priorities. The number of research competitions increased from three in fiscal year (FY) 2002 to 11 in FY 2007; the number of applications received increased from 226 in FY 2002 to 459 in FY 2007. OERI, the predecessor organization to IES, had 89 active grants funded in FY 2001. IES had 265 active grants funded from the same funding line in FY 2006. The efficiency of IES in managing its grant portfolio has increased even faster than the size of the portfolio: OERI had 69 staff members managing its grants in 2001. In 2006, IES had 13 staff members in NCER managing its grants. Thus each staff member in OERI managed 1.3 grants, while each staff member in IES managed 19.2 grants.

The quality of IES-funded research is quite high: In 2006, 94 percent of funded grant applications received a score of excellent from the panels of distinguished scientists responsible for the peer review of grant applications. And befitting IES's emphasis on applied research, in 2006, 74 percent of the projects it funded were deemed to be of high relevance to education practice as determined by an independent review panel of experienced practitioners.

Increasing the Nation's Capacity to Conduct High-Quality Education Research

Recognizing the significant capacity issues within the education research community, NCER established a program to fund interdisciplinary research training programs in the education sciences at the graduate and postdoctoral levels. Through its predoctoral program, NCER has made substantial grants to support graduate research training programs at these 10 top research institutions:

- Carnegie Mellon University
- Florida State University

- Northwestern University
- University of Chicago
- University of Miami
- University of Minnesota
- University of Pennsylvania
- University of Virginia
- University of Wisconsin-Madison
- Vanderbilt University

The 10 interdisciplinary programs include departments such as psychology, political science, economics, education, and epidemiology and are providing intensive training in education research and statistics to about 160 predoctoral graduate students. In the short history of the program, students have participated in nearly 200 research presentations at conferences across the country.

Funding provided to these institutions is enabling them to attract the best students. The average combined verbal and quantitative Graduate Record Examinations (GRE) scores of students supported by the IES predoctoral programs is 1,341. By comparison, the average GRE scores for doctoral students in the schools of education that house IES predoctoral training programs is 1,196. Thus the IES predoctoral training programs are attracting a much more qualified pool of graduate students than is attracted in general to doctoral programs in education at the elite universities that house the IES programs.

Using the Cognitive Sciences to Redesign Curriculum and Instructional Practices

Education has yet to wholeheartedly embrace what cognitive scientists have been learning

over the last 50 years about how people learn, process, and remember information. NCER has worked effectively with the cognitive science community to develop research projects that address practical instructional problems that bridge the gap between basic research on learning and information processing and what happens in classrooms with real teachers and students. Two examples follow. (More information on these and other related projects can be obtained online from a special issue of the American Psychological Society's Observer that highlighted IES-supported research on cognition and learning: http:// psychologicalscience.org/observer/ getArticle.cfm?id=1949.)

Temporal Spacing of Learning—

Studies going back a century and more have found that spacing learning episodes across time sometimes enhances memory. The so-called spacing effect is the topic of hundreds of articles, and one might assume that we know all we need to know about it. However, whether one looks at classrooms, textbooks, or software, there is little sign that people are paying attention to temporal spacing of learning.

In one of several studies on temporal spacing of instruction that has been conducted by IES researchers, students learned how to solve a permutation problem in mathematics and then worked two sets of practice problems. One-week spacing separating the practice sets drastically improved final test performance (which involved problems not previously encountered). In fact, when the two practice sets were back-to-back, final performance was scarcely better than if the second study session had been deleted altogether. Interestingly, most mathematics textbooks follow precisely the approach that this and other studies find so ineffective.

A brief lesson on a topic is followed by a practice set containing virtually every problem in the book relating to this topic. The findings from the IES-supported research program suggest that it would be far more useful to intersperse practice problems over weeks and months of instruction.

Test-Enhanced Learning—

Another team of IES researchers is exploring the effect of frequent classroom testing on student learning. Many teachers and administrators decry emphasis on testing in the schools, and some argue that classroom testing takes away valuable class time that could be used for instruction or discussion. However, several studies by IES researchers have found that giving tests to students after they have read the material produces a greater benefit on a final test than do many additional readings of the material. Further, repeated testing boosts the testing effect, so the positive effects of testing accumulate.

Improving Teacher Quality

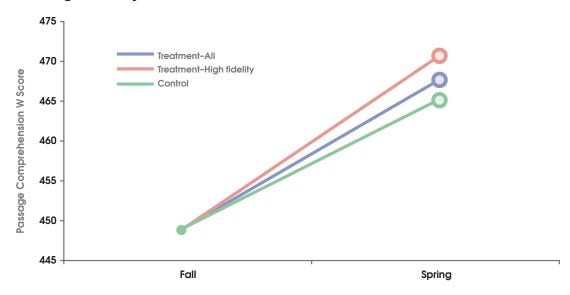
Teachers use a variety of strategies to teach children to read. Reading instruction, for example, may focus on decoding skills or comprehension. Activities may be teacher managed, such as when a teacher introduces a list of vocabulary words to a class, or childmanaged, such as when children engage in independent reading. We have known for a while that some teachers are better able to individualize instruction and produce larger gains in reading achievement for their students relative to other teachers. We have not, however, been able to capitalize on this knowledge because we did not know the critical differences in instruction that produced the effect and how to help less effective teachers emulate more effective teachers.

Researchers from the University of Michigan observed that students who made the most progress over the course of the year had teachers who individualized instruction in very specific ways. For example, children who began first grade with weaker letter-word-recognition skills and received more teacher-managed instruction that focused on decoding skills made greater progress. Children with stronger vocabulary skills at the beginning of the year made more progress if they spent more time engaged in child-managed, meaning-focused activities such as independent reading. The researchers developed an algorithm that accurately predicted how much students learned in one year based on students' fall reading scores and the proportion of time spent in different types of instructional activities. Armed with this insight and a grant from NCER, this team, now from Florida State University and the University of Michigan, developed a software program that uses students' reading scores at the beginning of the year to develop an instructional profile of the type, duration, and timing of instruction that is recommended for each child and assigns children with similar profiles to reading groups for classroom instruction. The instructional profile was designed so that teachers can apply the recommended instructional profile to the reading curriculum provided by their school in order to plan instructional activities for each reading group.

In a randomized field trial, teachers were assigned by lottery to use the algorithm-guided individualized reading instruction program or to plan reading instruction in their usual fashion. The evaluation included an ethnically and economically diverse sample of first-grade students in 10 schools. Relative to children in the control classrooms, first-grade students in the intervention group made greater gains in reading comprehension. (See figure 6.) In fact, there was about a two-month difference

Figure 6

Growth in Reading Comprehension Comparing Treatment, High-Fidelity Treatment, and Control Children



in grade equivalents between the groups at the end of the year. In classrooms in which teachers made greater use of the software program, almost all students, even those who started with weaker vocabulary scores, were reading at grade level by the end of the year.

IES AS A WHOLE

The previous sections were intended to convey some of the results of IES's investments through each of its four Centers. There is also an important story to be told about the functioning of IES as a whole.

Organization, Staffing, and Budget

IES is led by a director at the deputy secretary level who is nominated by the President and confirmed by the Senate for a term of six years. Dr. Grover J. (Russ) Whitehurst, a research psychologist, became the first director on November 22, 2002, and continues to serve. Senior staff reporting to the director include the Deputy Director for Policy and Operations, Sue Betka; the Deputy Director for Science, Dr. Anne Ricciuti; the Chief Information Technology Officer, Gerald Malitz; and the commissioners of the four Centers of IES: Dr. Mark Schneider, a political scientist (National Center for Education Statistics); Dr. Lynn Okagaki, a developmental psychologist (National Center for Education Research); Dr. Edward Kame'enui, an education researcher (National Center for Special Education

Research); and Dr. Phoebe Cottingham, an economist (National Center for Education Evaluation and Regional Assistance).

IES has a full-time staff complement of about 185 and was responsible in FY 2006 for roughly \$567 million in annual expenditures on external grants and contracts through seven budget line items (research, development, and dissemination; statistics; national assessment of educational progress; statewide longitudinal data systems; special education research; special education studies and evaluations; and regional educational labs), and through evaluation and national activity set-asides in the budgets of other U.S. Department of Education programs. (See figure 7.)

Scientific Peer Review Process

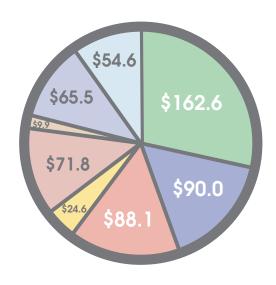
Under ESRA, the Director is required to establish a peer-review system, involving highly

qualified individuals with an in-depth knowledge of the subject to be investigated, for reviewing and evaluating all applications for grants and cooperative agreements that exceed \$100,000. Further, ESRA requires that all research, statistics, and evaluation reports conducted by, or supported through, IES shall be subject to rigorous peer review before being published or otherwise made available to the public.

Independent, high-quality peer review is a fundamental mechanism of science. It requires scientists to justify their methods and conclusions to their peers, and thereby assures that work that is funded or that is published has been subjected to and improved by informed criticism. Researchers who know that their work will undergo quality peer review learn to anticipate and handle likely objections before their work is submitted for review. This lessens substantially the tendency to plan or publish studies in which alternative points of view are not considered and alternative explanations for findings are not

Figure 7

2006 IES Budget (millions)



- Research, development, and dissemination (\$162.6)
- O Statistics (\$90.0)
- National assessment of educational progress (\$88.1)
- O Statewide longitudinal data systems (\$24.6)
- Special education research (\$71.8)
- Special education studies and evaluations (\$9.9)
- Regional educational laboratories (\$65.5)
- O Evaluation (\$54.6)

addressed. It is the conduct of activities and the drawing of conclusions that can withstand informed criticism that separates scientific research from advocacy with numbers, which often parades as science. Thus, the importance of the Institute's establishing high-quality processes for peer review of grant applications and its own publications cannot be overestimated.

IES has established a system for peer review for grant applications that is similar in many ways to the system of peer review at the National Institutes of Health. A key provision is intended to put distance between the program officers and administrators within IES who administer grant programs, work with grantees, and disseminate the results of research on the one hand, and, on the other, those who are responsible for the peer review of applications for funding under those grant programs. To that end, an office for standards and review was created and staffed within the office of the deputy director for science of IES. That office selects peer reviewers, determines review criteria, manages competitions, provides feedback to applicants, and generates scores for applications that determine scientific merit for funding decisions. IES's procedures and process for peer review of grant applications have been thoroughly documented (http://ies.ed.gov/ director/doc/SRO_grant_peerreview.doc).

Likewise, IES has established and documented a process for independent peer review of all research, evaluation, and statistical publications of IES (http://ies.ed.gov/director/sro/
peer review/report review.asp) that is very similar to the process by which scientific journals select and edit manuscripts for publication. The standards and review office carries out its work independent of any of IES's four operating Centers. Action editors within the standards and review office are senior staff members with years of experience conducting research and carrying out scientific

reviews. Centers submit a report to the standards and review office after they have conducted their own center-level review. Reports that present new analyses of data are sent to external scientists for peer review. Reports that contain only limited descriptive data are reviewed internally by standards and review staff. Reports are revised as necessary by their authors until they are approved by the standards and review office. During fiscal year (FY) 2005 and FY 2006, the standards and review office handled 168 reports. On average, the time between receipt of a manuscript and the generation of a disposition memo was 30 working days for external reviews and 8 working days for internal reviews. By way of comparison, the average turnaround time between submission of a manuscript to leading scientific journals and communication to the authors of the results of peer review is typically two to three months.

As required by statute, the National Board for Education Sciences (Board) undertook a thorough review of IES's peer-review processes. Board members received grant reviews and multiple iterations of report reviews. Members also attended panel meetings and thus were able to assess the quality of the deliberations. Many of the Board members are researchers who have received funding from the National Science Foundation (NSF) and/or the National Institutes of Health (NIH) and are familiar with the processes of these federal research agencies. They were impressed with what IES had put in place and were able to validate that these processes would assure quality, objectivity, validity, and integrity in scientific publications. In addition, ex-officio members Arden Bement, the director of the National Science Foundation, and Duane Alexander, director of the National Institute of Child Health and Human Development, publicly acknowledged that the approved procedures were of the highest merit and comparable to those of their

agencies. In its annual report to Congress in 2006, the IES Board concluded that:

The Institute has implemented standards and procedures for reviewing and approving grants and IES reports that are of the highest merit and are comparable to those of the National Science Foundation and the National Institutes of Health.

Priorities

ESRA requires that the director of IES propose to the Board long-term research priorities for IES and that upon approval of such priorities, the director make IES's plan for addressing such priorities available for public comment.

In July 2005, the director developed a proposed set of priorities and published them in the *Federal Register* to solicit public comment. Over the summer, the Board prepared an analysis of the public comments and shared it with Institute senior staff. The director considered the Board's analysis and the public comments and modified his proposed draft. At its meeting of September 2005 the Board approved IES's priorities (http://ies.ed.gov/director/board/reports/report06/attachment_a.asp).

In its 2006 report to Congress, the IES Board commented on the director's priorities:

The Institute did an excellent job developing its research priorities. The draft prepared for public comment was a sound document, reflecting the Institute's current work. It was more focused than many of the previously developed priority statements. That said, the public and Board comments concentrated on important new areas such as special education and the use of research. The director and the Institute were appropriately responsive to the comments, and the final draft provides a strong long-term guide.

Overview of IES Research Priorities

By providing an independent, scientific base of evidence and promoting and enabling its use, the Institute of Education Sciences (IES) aims to further the transformation of education into an evidence-based field and thereby enable the nation to educate all of its students effectively.

In pursuit of its goals, IES will support research, conduct evaluations, and compile statistics in education that conform to rigorous scientific standards, and will disseminate and promote the use of research in ways that are objective, free of bias in their interpretation, and readily accessible.

IES's Goals are to

- develop or identify a substantial number of programs, practices, policies, and approaches that enhance academic achievement and that can be widely deployed;
- identify what does not work and what is problematic or inefficient, and thereby encourage innovation and further research;
- gain fundamental understanding of the processes that underlie variations in the effectiveness of education programs, practices, policies, and approaches; and
- develop delivery systems for the results of education research that will be routinely used by policymakers, educators, and the general public when making education decisions.

IES's Foci

IES has a focus on students whose education prospects are hindered by inadequate education services and conditions associated with poverty, race/ethnicity, limited English proficiency, disability, and family circumstance.

IES has a focus on academic outcomes. It will concentrate on conditions within the control of the education system, with the aim of identifying, developing, and validating effective education programs, practices, policies, and approaches as well as understanding the factors that influence variation in their effectiveness such as implementation.

Web-Based Dissemination

Delivery of information through IES's website is of critical importance in generating access to and utilization of the activities and products of IES. To that end, the position of chief information technology officer was established in 2005 in the office of the director of IES. The chief information technology officer and his staff of three employees and 10 contractors were charged with a complete overhaul of IES's Web presence with the goal of generating timely, readily accessible information with a common look and feel across the Centers and offices of IES.

On May 5, 2006, a new IES website was launched. This included new websites for the National Center for Education Research, the National Center for Educational Evaluation and Regional Assistance, and the National Center for Special Education Research, as well as a redesign of the previously existing website of the National Center for Education Statistics. The IES website now provides a comprehensive and uniform look and feel for all information generated by IES.

Web traffic for IES's website now exceeds 18 million page views per month. When this is combined with the traffic for two major IES websites that are hosted by contractors (ERIC with 8.2 million searches per month and WWC with 1 million page views per month), IES accounts for about one-third of the web traffic of the entire U.S. Department of Education and substantially more traffic than popular sites such as that of the U.S. Census Bureau.

Major website additions over the past eight months include

 an interactive grant topic selection tool to help users find the current IES research

- topic(s) that are most appropriate for their research interests (http://ies.ed.gov/funding/grant_topic_selection.asp);
- a calendar of events that includes information on conferences, training sessions, publications, grant awards, and other pertinent pieces of information (http://ies.ed.gov/whatsnew/calendar/);
- a fully integrated website for all 10 Regional Educational Laboratory Programs (REL) (http://ies.ed.gov/ncee/edlabs/);
- a new search engine that provides faster and more accurate search results to user queries (http://search.nces.ed.gov/search); and
- a complete staff listing for all IES employees that contains area of expertise and keywords to help the public better identify appropriate staff members to contact for questions (http://ies.ed.gov/staff/stafflist.asp).

Annual Research Conference

In 2006, IES organized the first of what will be a series of annual research conferences (http://ies.ed.gov/director/sro/ies conference/index.asp). Attendance (527 registered) was so much greater than expected that additional hotel space had to be obtained. The program included 235 research presentations and 4 plenary sessions. A survey of participants found that 80 percent reported the overall quality of the conference to be good or excellent.

Urban Education Research Task Force

In October 2006, IES announced the formation of a 15-member task force charged with advising IES on issues related to the

nation's largest public school districts. Task force duties include making recommendations of areas of research and data collections that are not covered through existing programs; helping IES's leaders think about the design of large, cross-district research projects; and identifying and supporting greater collaboration between the research community and urban educators. Michael Casserly, executive director of the Council of the Great City Schools, chairs the task force, which held its first meeting in Washington, D.C. on January 8, 2007.

As part of what IES anticipates will be a long-term collaboration with the Council of the Great City Schools, IES has provided a competitive grant to the Council to establish the Senior Urban Education Research Fellowship program. The fellowship program is designed to promote collaborative, high-quality, rigorous research projects between senior researchers and urban school districts.

National Conference of State Legislatures

IES has made a competitive grant to the National Conference of State Legislatures to support a number of invitational institutes that will allow distinguished researchers to inform state legislators of research related to pressing policy issues and to consider with legislators how legislative initiatives can be designed to generate data that can be used to evaluate and improve programs. The initial institute on "What Works to Recruit and Retain Effective Teachers," was held January 4-6, 2007, in San Diego.

Society for Research on Educational Effectiveness

IES has made a competitive grant to support the formation of the Society for Research on

Educational Effectiveness (SREE). For nearly a century now, the American Educational Research Association has been the main professional organization that has supported and disseminated the work of education researchers. While recognizing the great contribution that AERA has made and will continue to make to education, SREE was formed to provide a home for researchers who have a commitment to using the procedural norms of science to investigate questions of cause-and-effect critical for effective educational practice. SREE held a very successful initial conference in December of 2006 that was standing-room-only. SREE's upcoming projects include a research journal slated to start in January 2008 and a handbook of research on educational effectiveness.

National Board for Education Sciences

IES is overseen by the National Board for Education Sciences—15 highly qualified individuals, the majority with strong research backgrounds, who are nominated by the President and confirmed by the Senate. The initial members of the Board were confirmed by the Senate at the close of the 108th Congress. The Board held its first meeting in February 2005 and has held six meetings in total. The Board's initial activities focused on statutory responsibilities for considering and approving IES's long-term priorities and procedures for peer review. With those two responsibilities accomplished through actions of the Board by January 2006, the Board turned its attention to receiving testimony from practitioners and policymakers on needs that might be served by IES.

The Board made its first annual report to Congress in 2006, concluding that:

The vision Congress had when it created the Institute for Education Sciences is being realized, and the Board is privileged to serve during this important period of transformation.

The Board further concluded:

Since the Institute has and continues to meet the highest standards for promoting rigorous and relevant research, the National Board for Education Sciences recommends that Congress and the Administration support the Institute's role as the primary agency for federal education research.

CONCLUSION

The nation needs policymakers, educators, and concerned citizens to see the value of rigorous evidence, to turn to it when faced with difficult decisions, and to insist that new policies that cannot wait for evidence be tested as they are implemented. That requires a transformation in the way education is conducted. We must become a learning society—a society that plans and invests in learning how to improve its education programs. IES is at the center of that transformation because that is our statutory mission and there is substantial, bipartisan political support for evidence-based education policy. IES has made substantial progress in the last four years. It has established the infrastructure that is necessary to support rigorous and relevant research. Investments through the infrastructure are beginning to yield important results. And people gain access to IES's products widely and frequently through its websites. Much work remains, and many challenges lie ahead. As a point of contrast, the transformation of medicine from a field dominated by authority and professional consensus to one dominated by evidence arguably began in earnest in the 1930s and was not in full bloom until the early 1990s. The yield in health outcomes from that transformation in medicine and public health

is inarguable. For example, life expectancy at birth in the United States increased by 30 years from 1900 to 2000. Dramatic changes can also be expected from evidence-based education if it receives appropriate support from Congress and the American public.

GRANT AND CONTRACT AWARDS

IES carries out its programs through grants and contracts. The appendices include all awards made since the last biennial report to Congress.

APPENDICES Appendix A

National Center for Education Research (NCER)

NCER carries out education research activities primarily through grants.

Education Leadership

• Name of Institution: The Board of Regents of the University of Wisconsin

Principal Investigator: Anthony Milanowski **Co-Principal Investigators:** Steven Kimball, Herbert Heneman, III

Description: Study of Innovative School Leadership Performance Evaluation Systems – Increased accountability demands on school principals to improve student achievement have led to a need for research on how school leadership skills are associated with student success, on assessment practices that can identify leaders who possess these skills, and on how to help principals develop these skills. The purpose of this project is to provide evidence of the potential efficacy of standard-based leadership evaluations in helping principals develop the proficiencies needed to support improved student achievement.

Amount: \$420,070

Period of Performance: 9/1/05-8/31/07

 Name of Institution: School Leadership Center of Greater New Orleans

Principal Investigator: Brian Riedlinger

Co-Principal Investigators: Scott Bauer (George Mason University), Betty Porter, Jeffrey Oescher (University of Southeastern Louisiana)

Description: The Coaching Model: A Collaborative Pilot Program – In the context of high-stakes school accountability policies, school principals are increasingly expected to provide instructional leadership that promotes student achievement, in addition to fulfilling managerial and administrative responsibilities. The purpose of this project is to develop, implement, and evaluate a coaching

model for new principals in several Greater New Orleans school districts. The impact of the coaching model program on student achievement and school climate will be assessed as well as the impact on principals' understanding and ability to perform in their jobs, their persistence in leadership positions, and their perceived levels of job stress and sense of isolation in their roles.

Amount: \$1,482,155

Period of Performance: 6/1/05-5/31/08

 Name of Institution: Research Foundation of State University of New York

Principal Investigator: James Wyckoff

Co-Principal Investigators: Hamilton Lankford, Donald Boyd, Susanna Loeb (Stanford University), Pamela Grossman (Stanford University)

Description: Do Reduced Barriers to Entry Affect Student Achievement and Teacher Retention: The Case of New York City Math Immersion - The researchers are conducting a two-year project that seeks to identify the relationship between an alternative teacher certification program and academic outcomes. This research will evaluate Math Immersion, a New York City alternative certification program for math teachers that is designed to increase the pool of qualified math teachers for schools. The Math Immersion program offers teacher candidates who did not major in mathematics as undergraduates the opportunity to become public school math teachers if they have a math related major, or if they passed at least one college-level calculus course with a grade of B-minus or better and have math-related work experience.

Amount: \$394,424

Period of Performance: 3/1/06-2/28/08

• Name of Institution: National Bureau of Economic Research

Principal Investigator: Patrick Bayer

Co-Principal Investigators: Fernando Ferreira, Robert McMillan

Description: The Unintended Consequences of a Major Education Policy Reform: California's Class Size Reduction, Student Achievement, and the 'Social Multiplier' – All school reforms, but especially those

that are far-reaching in scope, have the potential to have consequences unanticipated by policymakers. The purpose of this study is to identify the unintended consequences associated with California's class size reduction on the distribution of students across schools and households across neighborhoods. The theory behind class size reduction policies is that smaller classes will lead to lasting academic improvements, especially in the areas of reading, mathematics, and science. In 1996, California inaugurated a state-wide voluntary class reduction policy aimed at reducing class sizes in the primary grades from around 30 students to 20. This research team hypothesizes that the policy created a domino effect in areas outside of the classroom that ultimately had a negative impact on student achievement.

Amount: \$390,923

Period of Performance: 7/1/05-6/30/07

 Name of Institution: National Bureau of Economic Research

Principal Investigator: Thomas Kane

Co-Principal Investigators: Justine Hastings, Douglas Staiger

Description: Implementing Public School Choice in Charlotte, NC: Impacts on Student Outcomes, Competitiveness and Racial Segregation — Intradistrict public school choice is a systemic school reform strategy focused on allowing parents the right to choose which public school their child may attend within their home school district. The goal of this study is to examine the impact of implementing lottery-based public school choice in Charlotte, NC, on several outcomes: performance on standardized tests, student absences, disciplinary problems, parental satisfaction, participation in after-school activities, school demand, and racial re-segregation in Charlotte.

Amount: \$1,364,688

Period of Performance: 6/1/05-5/31/09

• Name of Institution: Pennsylvania State University

Principal Investigator: William Hartman

Description: Cost Accounting for Student-Level Resources - Currently school-level per-pupil expenditure data collapse expenditures across students receiving different services. When these data are associated with school-level student achievement scores, the data do not enable administrators to make informed decisions about the allocation of resources in ways that are meaningfully linked to student learning. The purpose of this project is to assist educators in using existing resources to achieve instructional goals. The researchers are developing and field testing a new cost accounting system and procedures that will allow schools and districts to track student-level resources in ways that will enable administrators to make resource allocation decisions that are tied to student-level learning outcomes.

Amount: \$1,104,161

Period of Performance: 7/1/05-6/30/08

High School Reform

• Name of Institution: The University of Chicago

Principal Investigator: Diane Schanzenbach

Description: Assessing the Effectiveness of Chicago's Small High School Initiative - There is a growing consensus among policy makers, educators, parents, and future employers that American high schools are in need of significant reform. One of the most popular recent reforms is the "small schools" movement. Small schools have been associated in some settings with improved student outcomes, especially among disadvantaged youth. Although prior research attempted to isolate the impact of smaller schools, it is difficult to completely disentangle the impact of small schools in the previous research from other confounding factors correlated with school size such as community factors, Catholic school effects, and smaller classes. The research study will use a rich longitudinal data set from the Chicago Public Schools (CPS) and a variety of analytic models to attempt to ascertain the impact on student

achievement of CPS's recent introduction of 21 small public high schools of choice.

Amount: \$336,664

Period of Performance: 7/1/06-6/30/08

Name of Institution: University of Florida
 Principal Investigator: Damon Clark
 Co-Principal Investigator: Francisco Martorell

Description: The Impact of Exit Exam Performance on High School and Post-Secondary Outcomes -A growing number of states require students to pass exit exams in order to graduate from high school. However, a large and vocal group of testing opponents worries that exit exams will harm students, especially disadvantaged students who tend to do poorly on standardized tests. Critics argue that exit exams lower graduation rates by denying diplomas to students who complete all other requirements for a degree, and by inducing some students who fail the exam initially to drop out rather than try again. This research will use data from Florida students to: (1) assess the generalizability of the Texas results; (2) see if specific features of a testing policy (such as the number of retest attempts) matter; (3) test whether the impact varies by student characteristics; and (4) conduct a longer follow-up than was possible in Texas to see if exit exam performance affects long-

term economic status. **Amount:** \$367,081

Period of Performance: 9/1/06-10/30/08

• Name of Institution: The University of Chicago

Principal Investigator: Elaine Allensworth Co-Principal Investigator: Valerie Lee

Description: Comprehensive Evaluation of the Effects of District-Wide High School Curriculum Reform on Academic Achievement and Attainment in Chicago – There is increasing recognition and concern in the U.S. that too few high school students, especially those in urban areas, are graduating with the skills needed for college and the workforce. Currently, there are two major curriculum reform movements at work in high

schools: one to engage all students in traditional college preparatory work, and another to increase the difficulty of college preparatory curriculums. This study provides an elaborate and sophisticated examination of a series of curricular changes that were phased in over the course of a decade in Chicago public high schools. The study looks at the changes in course offerings, course requirements, instructions and student achievement scores.

Amount: \$1,844,860

Period of Performance: 7/1/06-6/30/10

• Name of Institution: University of North Carolina at Greensboro

Principal Investigator: Julie Edmunds

Co-Principal Investigator: Lawrence Bernstein

Description: Study of the Efficacy of North Carolina's Learn and Earn Early College High School Model - Students in Early College High Schools are expected to graduate in four to five years with a high school diploma and an Associate's degree or two years of transferable college credit. Yet Early College High Schools are a recent intervention with very little research on their impact. Therefore, this study aims to: (a) determine whether students who attend Early College High Schools perform significantly better than students in traditional high schools; (b) examine the extent to which effects on student outcomes vary by student characteristics; and (c) identify the extent to which specific Early College High School components are associated with positive student outcomes.

Amount: \$2,871,016

Period of Performance: 7/1/06-6/30/10

Mathematics and Science Education

• Name of Institution: High/Scope Educational

Research Foundation

Principal Investigator: Ann Epstein Co-Principal Investigator: Marijata

Daniel-Echols

Description: Numbers Plus-A Comprehensive *Approach to Early Mathematics Education* – The High/Scope educational approach is implemented in many early childhood programs serving children from low-income and minority backgrounds. For example, the Head Start Family and Child Experiences Survey data indicate that one in four Head Start programs report using the High/Scope curriculum. Although the overall positive impact of the High/Scope approach has been demonstrated in past research, its mathematics component needs to be made compatible with current research and standards, such as those developed by the National Council for Teachers of Mathematics. The purpose of this project is to develop and obtain preliminary evidence of the potential impact of a targeted, research-based preschool mathematics curriculum to supplement the overall High/Scope educational approach that can also be used in any program implementing compatible instructional models.

Amount: \$1,497,813

Period of Performance: 7/1/06-7/1/09

Name of Institution: Lehigh University
 Principal Investigator: Asha Jitendra
 Co-Principal Investigator: Jon Star (Michigan State University)

Description: Enhancing the Mathematical Problem Solving Performance of Sixth Grade Students Using Schema-Based Instruction - Data indicate that by the eighth grade, U.S. students' mathematics performance is below the international average, especially in geometry, measurement, and proportionality. The problem of underachievement is particularly severe for high-risk groups, such as low-income and limited-English proficient students. Although there is emerging evidence to support reform based mathematics methods and curricula, data regarding the impact of these reforms for students at-risk for math failure are limited. The purpose of this study is to develop and evaluate the potential impact of schema-based instruction to enhance the mathematical problem solving performance of sixth grade students.

Amount: \$1,432,797

Period of Performance: 9/1/06-8/31/09

• Name of Institution: Miami Museum of Science

Principal Investigator: Judy Brown

Co-Principal Investigators: Daryl Greenfield (University of Miami), Mark Chung (SRI International)

Description: Early Childhood Hands-On Science Curriculum Development and Demonstration - Early Childhood Hands-On Science Curriculum Development and Demonstration. There has also been very little systematic focus on science education in the preschool classroom. This may be partly due to the misperception that preschool children are too young to learn certain topics, including science. Recent efforts to apply research in the cognitive sciences to the preschool setting is beginning to change such misperceptions, but science still remains a marginal component of most preschool curricula. The goal of this project is to develop and obtain preliminary evidence of the potential impact of a comprehensive early science readiness curriculum and related teacher professional development.

Amount: \$1,415,652

Period of Performance: 7/1/06-6/30/09

• Name of Institution: SRI International Principal Investigator: Jeremy Roschelle Co-Principal Investigator: Ken Rafanan

Description: *Getting Fractions Right with* Technology-Mediated Peer-Assisted Learning (TechPALS) – A review of experimental studies in elementary mathematics education aimed at improving the performance of low-achieving students identified two productive strategies: (1) providing feedback to teachers and students, and (2) peer-assisted learning. This project seeks to integrate these strategies through the use of technology, thus enabling more teachers to implement these strategies successfully. This project involves the development of an intervention designed to improve students' mastery of rational numbers by integrating two research-based interventions. The intervention will include the use of handheld computers to implement effective strategies of peer-assisted learning and feedback to both teachers and students. Two RCTs will be used to investigate the potential efficacy of the approach

to teaching rational numbers and examining how teachers are able to use feedback from the system to adapt instruction and the resulting impact on student achievement.

Amount: \$527,077

Period of Performance: 7/1/06-6/30/08

• Name of Institution: Biological Sciences Curriculum Study

Principal Investigator: Janet Carlson Powell **Co-Principal Investigator:** Joseph Taylor

Description: Measuring the Efficacy and Student Achievement of Research-Based Instructional Materials in High School Multidisciplinary Science – In order to improve student achievement in science, school districts in the U.S. need rigorous evidence regarding the impact of instructional materials so they can make sound decisions about their science programs. In 2000, the Biological Sciences Curriculum Study team began the design and development of BSCS Science: An Inquiry Approach to meet the need for multidisciplinary science curricula. Their initial work was funded by the National Science Foundation. Now that the curriculum has been developed and commercially published, in this IES project, the researchers are conducting a rigorous evaluation to test whether students who use this curriculum will learn more than students using the existing commercially produced science curriculum.

Amount: \$2,632,563

Period of Performance: 7/1/06-6/30/10

• Name of Institution: Vanderbilt University Principal Investigator: Richard Lehrer

Co-Principal Investigators: Leona Schauble, Mark Wilson (University of California, Berkeley)

Description: Assessing Data Modeling and Statistical Reasoning – Data modeling is, in fact, what professionals actually do when they reason statistically, and it is central to a wide variety of disciplines, including engineering, economics, medicine, and natural science. Data modeling includes deciding which aspects of the world are relevant to a conceptual model, how best to measure them, how to structure and represent the resulting measures, and how to make relevant

inferences. The purpose of this project is to develop an assessment system to evaluate elementary and middle school students' skills and understandings related to data modeling and statistical reasoning.

Amount: \$1,599,946

Period of Performance: 7/1/06-6/30/10

• Name of Institution: New York University

Principal Investigator: Jan Plass

Co-Principal Investigators: Catherine Milne,

Bruce Homer, Trace Jordan

Description: Molecules and Minds: Optimizing Simulations for Chemistry Education — The primary purpose of the project is to improve high school chemistry education. Recent evidence suggests that U.S. students lag behind their international counterparts with regard to their science skills. The investigators plan to develop and assess the potential of instructional simulations to improve student learning and achievement in chemistry. At the end of this project, the investigators will have a set of computer simulations and data showing whether or not using these simulation modules have the potential to facilitate learning chemistry concepts. A subset of these simulations could be combined to form a complete curriculum for a grade 9 chemistry course.

Amount: \$1,112,774

Period of Performance: 8/1/05-7/31/08

Name of Institution: Purdue University
 Principal Investigator: Panayota Mantzicopoulos
 Co-Principal Investigators: Helen Patrick,
 Ala Samarapungavan

Description: The Scientific Literacy Project: Enhancing Young Children's Scientific Literacy Through Reading and Inquiry-Centered Adult-Child Dialog – The primary purpose of this project is to better prepare young children for later science learning. The Nation's Report Card documents that by fourth grade, students from minority and economically disadvantaged backgrounds lag behind white, middle-class students in science achievement. To work on addressing this problem, this research team plans to develop, pilot, and implement a comprehensive instructional program

designed to enhance preschool and kindergarten children's early scientific literacy. The Scientific Literacy Project intervention will have both a school and a home component and will be built around science topics and skills linked to state and national standards for preschool and kindergarten curricula.

Amount: \$1,490,693

Period of Performance: 8/1/05-7/31/08

Name of Institution: University of Illinois
 Principal Investigator: Arthur Baroody

Description: *Developing an Intervention to Foster Early Number Sense and Skill* – The primary purpose of this project is to help children at risk for difficulties learning mathematics become fluent in basic addition and subtraction facts. In the classroom, students who fall behind in mathematics and are labeled as "learning disabled" often lack fluency with basic mathematics' facts, and these skills are essential for success with many more-advanced aspects of school mathematics. To work on addressing this problem, the investigator plans to develop three qualitatively different computer-aided pre-K to grade 1 programs for helping children at risk for difficulties learning mathematics memorize the basic addition facts (e.g., 8+6) and related subtraction facts (e.g., 14-8) and to evaluate the potential efficacy of the programs.

Amount: \$1,499,965

Period of Performance: 6/16/05-6/15/08

• Name of Institution: University of Southern California

Principal Investigator: Carole Beal

Description: AnimalWatch: An Intelligent Tutoring System for Grade 6 Mathematics — The primary purpose of the project is to improve mathematics skill and achievement, including for those individuals from groups that have been traditionally under-represented in science and engineering fields. Within the United States, there are substantial group differences in mathematics achievement. This project focuses on Grade 6 because significant group differences in mathematics achievement and motivation emerge at the transition to middle school. Specifically,

the investigators plan to create and evaluate supplemental intelligent tutoring software (ITS) for supporting student learning outcomes in Grade 6 mathematics. The AnimalWatch software will integrate mathematics problem solving and multimedia instruction with information about environmental science and endangered species.

Amount: \$1,500,000

Period of Performance: 6/1/05-5/31/08

• Name of Institution: Ohio State University Principal Investigator: Douglas Owens

Co-Principal Investigators: Louis Abrahamson (The Better Education Foundation), Frank Demana, Karen Irving, Stephen Pape, Joan Herman (University of California, Los Angeles)

Description: Classroom Connectivity in Promoting Mathematics and Science Achievement — The primary purpose of the project is to improve mathematics and science achievement. U.S. high school students compare relatively poorly internationally, while U.S. elementary school students perform as well as or better than those of other countries. This project is focusing on grade levels where some studies have indicated that test scores decrease for U.S. students. These investigators plan to examine the efficacy of connected classroom technology with interactive pedagogy and professional development on mathematics and science achievement at the 7th through 10th grade levels.

Amount: \$3,092,652

Period of Performance: 6/1/05-5/31/09

• Name of Institution: WestEd

Principal Investigator: Carne Barnett-Clarke

Description: Math Pathways and Pitfalls Lessons for K-7 Students: Improving Mathematics Achievement for English Language Learners — The purpose of this project is to improve mathematics achievement for English Language Learners (ELL). In 2000, while 35 percent of white fourth-graders scored at or above proficient in mathematics on the NAEP, just 10 percent of Latinos scored at this level. There is a need for rigorous research-based instructional

materials that help Latino students and English Language Learners develop important mathematics concepts and the academic language needed to understand and reason about those concepts. The investigators will address this problem by conducting an efficacy trial investigating the impact of the Math Pathways and Pitfalls (MPP) lessons on English Language Learners' (ELL) mathematical achievement and the development of mathematics-related language.

Amount: \$2,757,173

Period of Performance: 6/1/05-5/31/09

 Name of Institution: Regents of the University of California

Principal Investigator: Prentice Starkey (University of California, Berkeley)

Co-Principal Investigator: Alice Klein

Description: Scaling Up the Implementation of a Pre-Kindergarten Mathematics Curriculum in Public Preschool Programs — The primary purpose is to improve school readiness and subsequent achievement in math of students from low-income families. Low-income children enter kindergarten behind their middle-class peers in math knowledge. This gap in knowledge persists through high school. To work on addressing this issue, the investigators plan to examine the effectiveness of a pre-kindergarten mathematics intervention implemented at scale across two types of public preschool programs serving low-income children (Head Start and state-funded preschools) in California and Kentucky.

Amount: \$6,000,000

Period of Performance: 6/1/05-5/31/10

• Name of Institution: University at Buffalo, The State University of New York

Principal Investigator: Douglas Clements **Co-Principal Investigators:** Julie Sarama, Jaekyung Lee

Description: *Scaling Up TRIAD: Teaching Early Mathematics for Understanding with Trajectories and Technologies* – The primary purpose is to increase math achievement in young children, especially those

at risk for poor math achievement. Focused PreK math interventions have been shown to improve student learning in math under limited conditions. Unfortunately, scaling up such interventions has not been attempted. To work on addressing this problem, these investigators plan to evaluate a large-scale implementation of the TRIAD mathematics intervention in diverse geographical areas with diverse student populations.

Amount: \$7,161,466

Period of Performance: 6/1/05-5/31/10

National Research and Development Centers

• Name of Institution: Teachers College, Columbia University

Principal Investigator: Thomas Bailey

Description: National Research Center on Preparing *Low-Skilled Students to Succeed in College* – The National Center for Postsecondary Research has a program of research aimed at addressing the weak academic and social preparation that hinders student success. Major studies include examinations of dual enrollment programs (i.e., programs in which high school students are able to enroll in college courses) and learning communities (i.e., an approach to remediation in which college students are placed in small groups that take paired remedial and academic courses). Although both strategies are increasingly popular, and significant resources are expended upon them, little is known about their effects. In addition, the Center will carry out supplementary research and engage in leadership and dissemination activities with the education policy, practitioner, and research communities.

Amount: \$9,813,619

Period of Performance: 7/1/06-6/30/11

• Name of Institution: University of Connecticut

Principal Investigator: Joseph Renzulli

Description: *National Research Center on the Gifted and Talented (NRCGT)* – The NRCGT will conduct research that addresses significant

challenges in the education of gifted and talented students in elementary and secondary schools and will engage in leadership and dissemination activity with the education policy, practitioner, and research communities. One of the Center's areas of concentration is on assessment of gifted and talented students. In this area, the Center will develop and validate an assessment system for the identification of gifted and talented students and will construct outcome assessments in reading and mathematics for gifted and talented students. Another major activity of the Center is a rigorous evaluation of education programs for gifted and talented elementary school students.

Amount: \$8,706,200

Period of Performance: 7/1/06-6/30/11

• Name of Institution: University of Virginia Principal Investigator: Robert Pianta

Description: *National Research Center on Early Childhood Education* – The National Research Center on Early Childhood Education will conduct research that contributes to the solution of significant problems in early childhood education and will engage in leadership and dissemination activities with the early childhood policy, practitioner, and research communities. The Center's research will include work on inservice and preservice training of early childhood teachers, early childhood curricula in literacy and language development, and assessment of child outcomes in language and literacy.

Amount: \$9,959,200

Period of Performance: 7/1/06-6/30/11

• Name of Institution: The Urban Institute Principal Investigator: Jane Hannaway

Description: Center for Analysis of Longitudinal Data in Education Research (CALDER) — National Research and Development Center for Analysis of Longitudinal Data in Education Research will address a variety of education policy issues including teacher policies (e.g., hiring, compensation, and certification), governance policies (e.g., accountability, choice) and the ramifications of changing social and economic

community conditions (e.g., changing student demographics, resources) on education. The Center will utilize comprehensive education databases in Florida, Missouri, New York, North Carolina, Texas, and Washington to disentangle the effects of different policies by location. The Center also expects to make significant technical contributions to the field as it engages new, rich databases to help guide policymaking.

Amount: \$10,000,000

Period of Performance: 7/1/06-6/30/11

• Name of Institution: Vanderbilt University

Principal Investigator: James Guthrie

Co-Principal Investigator: Matthew Springer

Description: National Center on Teacher Performance *Incentives* – The signature activity of the National Center on Teacher Performance Incentives (Policy-NCTPI), one of two IES Policy Centers, addresses a key issue in education, namely, a possible misalignment between uniform salary schedules applicable to virtually all teachers and the concept of providing financial rewards to classroom teachers who significantly elevate students' academic achievement. The Center will conduct two randomized field trials offering student achievementrelated bonuses (ranging from \$5,000 to \$15,000) to teachers, one in Nashville (TN) concentrating on 200 volunteer 5th- and 6th-grade mathematics teachers and the other in another large school district to be determined. Participating teachers will be randomized into control and treatment conditions for a three-year period. Experimentalgroup teachers will be eligible for an annual bonus, contingent upon student achievement gains. Control-group teachers will be compensated for record-keeping and other study activities.

Amount: \$10,000,000

Period of Performance: 7/1/06-6/30/11

• Name of Institution: University of California, Los Angeles

Principal Investigator: Eva Baker

Co-Principal Investigator: Joan Herman

Description: Center for Research on Evaluation, Standards, and Student Testing (CRESST) – The

Center for Research on Evaluation, Standards, and Student Testing is developing and testing a model assessment system, emphasizing the intense and extended use of research-based formative assessments that are aligned to state standards and intended to improve instruction and subsequent student learning.

Focusing on middle school mathematics and building on its own prior research, CRESST is developing POWERSOURCE, a formative assessment intervention emphasizing fundamental mathematical principles essential to student success in Algebra I. The assessments are designed to help students organize their mathematical knowledge into big ideas or schema. After the development, initial testing, and refinement of POWERSOURCE are complete, CRESST will conduct randomized controlled studies in Pennsylvania and Hawaii to evaluate its effectiveness at scale.

Amount: \$9,968,718

Period of Performance: 6/1/05-5/31/10

• Name of Institution: University of Houston Principal Investigator: David Francis

Description: National Research and Development Center for English Language Learners – The Center's focused program of research consists of work in two areas. First is a series of targeted experiments to study critical issues for English-language learners and their teachers. Three of the issues are: (1) the efficacy of incorporating English as a second language enhancements into traditional effective comprehension instruction; (2) the role of teacher-guided instruction compared with teacher-guided instruction that also incorporates student group work; and (3) the benefits of modifying narrative and expository text to make them more comprehensible to English language learners. The second area involves a popular model for the delivery of content area instruction to English language learners, the Sheltered Instruction Observation Protocol or SIOP Model. Research to be conducted by the Center will test the effects of the SIOP Model on student academic success in science and social studies.

Amount: \$9,897,290

Period of Performance: 8/1/05-7/31/10

Postdoctoral Research Training Program

• Name of Institution: Stanford University

Principal Investigator: Anthony Bryk

Description: Postdoctoral Research Training in the Education Sciences – This Fellowship will center on one or more of the ongoing research projects of the Center faculty, which currently include (a) the study of teacher labor markets, (b) the effects of teacher pre-service training and continuing professional development, (c) the effects of early childhood education programs, (d) the effects of programs for English-language learners; (e) the introduction of technology into schools; (f) efficiency and adequacy in educational finance; and (g) methodological development to improve causal inference in educational research using value-added methods and quasi-experimental designs.

Amount: \$673,189

Period of Performance: 6/1/06-5/31/10

Name of Institution: University of Oregon
 Principal Investigator: Robert Horner

Description: *Postdoctoral Research Training in the Education Sciences.* The focus is on research addressing school-wide behavior support practices and integration of family support systems within schools, as well as methodological issues of studying intervention effects. Fellows will work with Drs. Tom Dishion and Robert Horner, with specific tasks related to (a) analysis of existing research databases, (b) designing and conducting intervention research, (c) development of conceptual/synthesis papers, (d) development of grant proposals, (e) development of advanced research and data analysis skills, and (f) professional presentations in multiple forums.

Amount: \$665,116

Period of Performance: 6/1/06-2/28/10

• Name of Institution: University of North Carolina at Chapel Hill

Principal Investigator: Donna Bryant

Description: Postdoctoral Training in Behavioral and Family Supports. The University of North Carolina-Chapel Hill Postdoctoral Research Training Program in the Education Sciences promotes the professional development of research scientists who will significantly contribute to early childhood education and related fields. Fellows work with faculty on one or more of 14 grant-funded studies: (1) evaluations of large samples of a variety of early childhood education settings, usually involving random selection of classrooms and children, and methods including classroom observations and child assessments, and (2) studies of professional development using random assignment to educational or quality enhancement interventions.

Amount: \$598,052

Period of Performance: 3/1/06-2/28/10

• Name of Institution: University of Virginia Principal Investigator: Robert Pianta

Description: Interdisciplinary Postdoctoral Training Program in Education Sciences – Among these projects are five randomized evaluation trials, quasi-experimental studies on large scale databases of state and national significance, planned comparison evaluations, natural history studies, and the Teachers for a New Era research program. These projects are organized in programs of research focused on early childhood/elementary classroom quality and intervention effects, teacher workforce quality and effects, and schooling experiences in relation to other developmental influences. In addition, work with affiliated faculty in a secondary rotation will draw into education sciences the expertise of faculty from across the University, including the Departments of Psychology, Economics, and Sociology.

Amount: \$608,294

Period of Performance: 7/1/06-6/30/10

• Name of Institution: Florida Center for Reading Research, Florida State University

Principal Investigator: Christopher Lonigan

Description: PIRT Program to Increase Research Capacity in Educational Science – This award supports an interdisciplinary predoctoral training program in the education sciences, with a particular emphasis on reading research. The PIRT is part of the Florida Center for Reading Research which employs an interdisciplinary approach to facilitating the reading achievement of children in the state of Florida.

Amount: \$705,627

Period of Performance: 3/1/05-2/28/09

• Name of Institution: Northwestern University

Principal Investigator: Larry Hedges

Description: Postdoctoral Research Training in Education Sciences - This program is designed to enable fellows to obtain both training in advanced measurement, research design, and statistical analysis methods as well as practical experience in their application in significant educational research projects. Fellows will work in one of a variety of substantive and methodological educational research projects at Northwestern University. These include projects on the design of large scale randomized experiments, methods for the synthesis (meta-analysis) of large-scale educational research studies, the social distribution of academic achievement, the development of language, mathematical, and spatial skills (and particularly the relation between input factors and the development of these skills in young children).

Amount: \$542,776

Period of Performance: 3/1/05-12/1/05

• Name of Institution: Purdue University

Principal Investigator: Douglas Powell

Description: *Postdoctoral Training in Early* Childhood Research - Purdue's postdoctoral fellowship training in early childhood intervention and teacher quality research is based at the West Lafayette campus of Purdue University, in the Department of Child Development and Family Studies. The program provides recent Ph.D. recipients with intensive training in curriculum intervention and teacher quality research in early childhood classrooms. Fellows base their work on one or more large-scale, federally

funded intervention studies. Participation in ongoing projects provides fellows with numerous opportunities to collaborate with leading methodologists and early intervention experts at other institutions affiliated with the Purdue studies.

Amount: \$327,248

Period of Performance: 3/1/05-8/31/08

 Name of Institution: University of California, Berkeley

Principal Investigator: Prentice Starkey

Description: Postdoctoral Training and Research in Children's Early Mathematical Training - This award supports a postdoctoral research training program. The training program's theme is the socioeconomic status (SES)-related gap in mathematical knowledge that appears early and widens during early childhood. The program will draw fellows from child-focused graduate programs such as developmental psychology, child and family studies, language and literacy education, or special education and provide crucial content knowledge in mathematical cognition, early childhood education, and intervention research methods. Preschool program partners include Oakland Head Start, Berkeley-Albany YMCA Head Start, Oakland Unified School District, the Berkeley Unified School District, Sacramento Head Start, and the San Juan Unified School District.

Amount: \$313,280

Period of Performance: 3/1/05-2/28/09

• Name of Institution: University of Pittsburgh Principal Investigator: Charles Perfetti

Description: *Postdoctoral Training in Reading and Language Research* — The program combines research in classrooms and laboratories using a range of methods (e.g., eye tracking and ERP) to study vocabulary learning and comprehension. Fellows will work on research with training faculty from Psychology and Education in the Reading and Language Group (http://www.lrdc.pitt.edu/ReadLab/) at the Learning Research and Development Center (LRDC; http://www.lrdc.pitt.edu/). Partners include the Departments of Psychology and Linguistics, the School of

Education, and the new Pittsburgh Science of Learning Center, in collaboration with Carnegie.

Amount: \$637,900

Period of Performance: 3/1/05-2/28/09

Name of Institution: Vanderbilt University
 Principal Investigator: David Cordray

Description: Experimental Education Research Training (ExpERT) – ExpERT is designed to train postdoctoral education scientists in conducting randomized field experiments of theory-based interventions and approaches to enhance student learning in educational settings. ExpERT involves formal coursework in statistics, measurement, and design, as well as courses in educational policies and practices, instruction, and learning. ExpERT provides opportunities to design, execute, and analyze results of field experiments, and attend summer workshops, a distinguished seminar series, and conferences.

Amount: \$615,460

Period of Performance: 3/1/05-2/28/09

Predoctoral Research Training Program

• Name of Institution: University of Chicago Principal Investigator: Stephen Raudenbush

Description: Interdisciplinary Training in Educational Research Methods – Research being conducted by core faculty includes methodological research on the design, analysis, and combination of results from randomized experiments in education, research designs for studies of scaling up of educational interventions, the analysis of non-experimental studies, and the use of natural experiments in education. Substantive research includes the social distribution of academic achievement, the effectiveness of teacher development programs in middle school science, input effects on the development of language, mathematics, and spatial competence in preschool through elementary school.

Amount: \$4,399,467

Period of Performance: 5/1/05-4/30/10

• Name of Institution: University of Miami Principal Investigator: Daryl Greenfield

Description: Interdisciplinary Training in Education Research and Advanced Statistical Methods focuses on in-depth study of educational issues arising in diverse, urban settings. The training program is housed in The Department of Psychology within the Applied Developmental Ph.D. program and also includes faculty mentors from the Departments of Sociology, Economics, Epidemiology, and multiple departments within the School of Education. Advanced statistical skills will be used in the analysis of project data on a diverse set of topics with an emphasis on the study of low-income and bilingual populations in urban settings who are at risk for poor educational outcomes. A rigorous seven course methodology core, supported by content and elective courses tailored to student's professional interests, serves as the central training grant theme, providing all students with a strong foundation in quantitative research designs and statistical methods applicable to educational research.

Amount: \$4,869,993

Period of Performance: 7/1/05-6/30/10

Principal Investigator: Mark Davison

• Name of Institution: University of Minnesota

Co-Principal Investigator: Paul van den Broek

Description: *Minnesota Interdisciplinary Training in Education Research* – The MITER Program is designed to develop education researchers whose ability to apply experimental methodology and cognitive sciences to practical educational issues will place them at the forefront of research and academic endeavors worldwide. Research themes within the program focus on experimental research methodology (standards-based assessment, continuous monitoring of student progress, experimental and quasi-experimental design with an emphasis on experimental designs, and longitudinal studies) and cognitive science as applied to educational issues (including training in

theories and data-gathering methods in educationrelated fields of cognition such as cognitive neuroscience, psycholinguistics, psychology of higher-order thinking and learning).

Amount: \$4,999,997

Period of Performance: 4/1/05-3/31/10

• Name of Institution: University of Pennsylvania

Principal Investigator: Rebecca Maynard

Description: University of Pennsylvania Pre-Doctoral Training Program in Interdisciplinary Methods for Field-Based Research in Education - The program in Interdisciplinary Methods for Fieldbased Research in Education emphasizes fieldbased, multi-disciplinary research that includes randomized controlled trials of educational interventions and innovations. Settings for the research will include both inner city schools serving high poverty neighborhoods and schools in more working-to-middle class communities. Trainees are expected to achieve proficiency in seven areas through standard course offerings; projects designed and supported summer institutes in advanced methods; weekly seminars; periodic visits by "experts in residence;" and participation in collaborative field-based research projects directed by members of the faculty leadership team in collaboration with program partners.

Amount: \$4,559,360

Period of Performance: 7/1/05-6/30/10

 Name of Institution: University of Wisconsin-Madison

Principal Investigator: Adam Gamoran

Description: *Interdisciplinary Training Program for Predoctoral Research in the Education Sciences* — The ITP program is training a new generation of researchers to carry out rigorous quantitative research that will provide scientific evidence on pressing problems of policy and practice in education. Wisconsin's ITP focuses on two related themes: (a) design and implementation of field-based randomized studies in schools and other complex, real-world settings; and (b) the statistical analysis of quantitative survey, observational, and assessment data on

education, with special attention to questions of causal inference.

Amount: \$5,000,000

Period of Performance: 8/1/05-7/31/10

Reading and Writing

• Name of Institution: California State University, Los Angeles

Principal Investigator: Anne Hafner

Description: Using Growth Mixture Modeling to Identify Patterns of Early Reading Development and Teacher and Program Correlates for English Learners - This project will use data from the Early Childhood Longitudinal Study to examine the development of English reading proficiency among English language learners. The purposes of this project are to: (a) use growth mixture modeling to identify distinct reading growth patterns and trajectories in children from kindergarten to grade five in two different large-scale data sets; (b) compare English language learners' reading growth with the growth of native English students; and (c) examine the associations that exist between membership in reading proficiency classes for English learners, and a variety of student SES and background characteristics, as well as teacher, instructional, class, and programmatic conditions.

Amount: \$88,179

Period of Performance: 3/1/06-2/28/07

 Name of Institution: Teachers College, Columbia University

Principal Investigator: Dolores Perin

Description: Postsecondary Content-Area Reading-Writing Intervention: Development and Determination of Potential Efficacy — Questions have been raised about the effectiveness of community college developmental education. Failure and dropout rates are high, and literacy performance even among advanced remedial students is poor. The poor outcomes may stem in part from inappropriate instructional approaches, including: lack of direct, explicit instruction in reading and writing skills;

lack of instructor preparation to teach reading and writing to low-skilled students; lack of instructional time; and limited connection of remedial reading and writing instruction to discipline-area content knowledge. This study addresses these problems by developing, testing, revising, and retesting an intervention that provides guided practice and transfer instruction in several reading and writing skills, contextualized in science content.

Amount: \$1,168,758

Period of Performance: 6/1/06-5/31/09

• Name of Institution: University of California, Santa Cruz

Principal Investigator: Judith Scott

Co-Principal Investigator: Katharine Samway (San Jose State University)

Description: Vocabulary Development Through Writing: A Key to Academic Success — A pattern of disparity is found for English language learners when compared with native English speakers. Although many factors contribute to the underperformance of low-income students and English language learners, research indicates that differences in students' knowledge of academic language is a key element in academic achievement. The purpose of the proposed study is to develop and obtain evidence of the potential impact of an academic register and vocabulary intervention for improving the reading and writing achievement of fourth graders.

Amount: \$1,402,553

Period of Performance: 3/1/06-2/28/09

• Name of Institution: University of Texas Health Sciences Center at Houston

Principal Investigator: Dennis Ciancio

Description: Development of an Empirically Based Vocabulary Curriculum for Kindergarten and First Grade Students – The ability to read and write proficiently is critical to success in American schools. However, according to recent national reports, there is a significant and increasing gap in reading and writing scores between students in economically advantaged and economically

disadvantaged schools. A pattern of disparity is also found for English language learners when compared with native English speakers. National reports concur on the dearth of effective interventions for oral language development, vocabulary development, comprehension skills, and writing. In this project, the researchers focus on vocabulary as a central component of oral language development, and on writing as one manifestation of literate language during the acquisition of literacy in the early grades.

Amount: \$1,105,785

Period of Performance: 6/1/06-5/31/09

Reading Comprehension and Reading Scale Up

Name of Institution: Arizona State University
 Principal Investigator: M. Adelaida Restrepo

Description: Vocabulary and Abstract Language Enhancement (VALE) to Improve Reading Comprehension in English Language Learners – To increase the likelihood of success in school of Latino students, schools must address these students' reading skills, particularly their reading comprehension. Low vocabulary levels are found to be one of the primary correlates of reading comprehension difficulties among Latino children. The purpose of this project is to improve the reading comprehension of Spanish-speaking English language learners by developing a curriculum designed to improve the vocabulary and understanding of abstract language of these at-risk students during their kindergarten year. At the end of this project, the investigators also will have gathered empirical data on the influence of this intervention on the reading skills of the participating children.

Amount: \$1,488,273

Period of Performance: 9/15/05-9/14/08

Name of Institution: CAST, Inc.
 Principal Investigator: Bridget Dalton
 Co-Principal Investigators: Patrick Proctor,
 Catherine Snow (Harvard University)

Description: Improving Reading Comprehension for Struggling Readers: Understanding the Roles of Vocabulary Development, Guided Strategy Use, and Spanish Language Supports in a Digital Reading *Environment* – The purpose of this project is to develop and test a technology-based instructional approach to improving reading comprehension among diverse 5th-grade struggling readers, including English language learners. Over three years, the researchers are conducting three studies to develop and refine a digital reading environment called a Universal Learning Edition (ULE), which has strong, embedded supports for reading strategies and active vocabulary learning. At the end of this project, the researchers will have a final version of the ULE prototype, teacher guide materials, and preliminary data on the potential effectiveness of this intervention to improve reading comprehension among struggling readers and ELLs.

Amount: \$1,499,185

Period of Performance: 7/1/05-6/30/08

Name of Institution: Texas A&M University
 Principal Investigator: Jorge Gonzalez
 Co-Principal Investigator: Deb Simmons

Description: Project Words of Oral Reading and Language Development (Project WORLD) - During the preschool years, children develop language skills that influence their long-term ability to read with comprehension. We know that children start school with different levels of language skills, and that those entry-level skills are correlated with long-term performance. However, there are few interventions that specifically target developing comprehension skills among preschool children. The purpose of this project is to develop a preschool curriculum (Words of Oral Reading and Language Development) designed to bridge the vocabulary and comprehension gap that exists for many disadvantaged children. The curriculum integrates preschool and home learning, narrative and informational text, and word and world knowledge. In addition, the investigators will assess the efficacy of the curriculum.

Amount: \$1,292,086

Period of Performance: 6/1/05-5/31/08

• Name of Institution: University of California, Riverside

Principal Investigator: Robert Calfee

Co-Principal Investigator: Roxanne Miller (Chapman University)

Description: The Read-Write Cycle: An Integrated Model for Instruction and Assessment of Reading Comprehension Through Reading and Writing in the Disciplines – Success in the 21st century requires competence in comprehending and communicating in academic disciplines such as the natural sciences, history, and geography. In upper elementary school, students are increasingly expected to master content knowledge independently, and yet we see that many students struggle with reading comprehension and the acquisition of knowledge from text. The purpose of this project is to create an effective and generalizable instructional method that teachers can implement across subject areas and grade levels for the improvement of students' reading comprehension, one that serves to broaden and deepen student knowledge of the content areas. At the conclusion of this project, this research team will have modified the Read-Write Cycle for use across several content areas, and will have data to support its potential effectiveness.

Amount: \$1,549,795

Period of Performance: 6/1/05-5/31/08

 Name of Institution: University of California, Riverside

Principal Investigator: Rollanda O'Connor **Co-Principal Investigator:** H. Lee Swanson

Description: Variations in Procedures to Improve Reading Fluency and Comprehension – Many poor readers struggle with word reading, and often exhibit slow, halting, error-laced reading—that is, reading that lacks fluency. This lack of fluency is correlated with poor comprehension. The intent of this 3-year research project is to implement and evaluate approaches to improving the reading fluency and, by extension, the reading comprehension of struggling readers in second and fourth grades. At the conclusion of this project, this team will have a fully developed fluency intervention that incorporates the practices

determined to be effective over the course of the project. The researchers will have evidence of the effectiveness of the combined intervention, and will also provide descriptive data on how fluency relates to comprehension in good and poor readers in the second and fourth grades.

Amount: \$1,043,775

Period of Performance: 8/1/05-7/31/08

• Name of Institution: University of Connecticut

Principal Investigator: Donald Leu

Co-Principal Investigator: David Reinking (Clemson University)

Description: Developing Internet Comprehension Strategies Among Adolescent Students At Risk to Become Dropouts – As the Internet becomes an increasingly important source of information, it presents new challenges for reading comprehension, as well as new opportunities for reaching students who have struggled because of their limited ability to comprehend printed materials. Although reading on the Internet can pose new challenges-as it demands new, higher-level comprehension skills-it also has the potential to increase students' engagement with learning, creating a context that permits renewed attention to reading and to instruction in reading comprehension strategies. The purpose of this project is to develop a research-based adaptation of reciprocal teaching to support poor, minority, adolescent youth in acquiring reading comprehension skills. At the conclusion of this project, the researchers will have developed instructional materials that can be used to teach comprehension while students read on the Internet.

Amount: \$1,795,477

Period of Performance: 7/1/05-7/1/08

Name of Institution: Vanderbilt University
 Principal Investigator: Donald Compton

Description: Evaluating a Multicomponent Reading Intervention Designed to Address the Diverse Needs of Struggling Readers in Late Elementary School – Although a central task of students in upper elementary school is to

learn from what they read, national evaluations consistently demonstrate that approximately onethird of fourth graders do not easily make sense of what they read. The purpose of this project is to develop a multi-component reading program to address the diverse needs of late elementary school students who are struggling readers. The research team is developing instructional dialogues, strategies, and materials that increase the probability that struggling readers derive and retain vocabulary and knowledge while reading text, especially science and social studies texts. At the completion of the project, this team will have initial effectiveness data on the proposed multi-component instructional program. These instructional procedures will be easily adapted for use with any expository text and used effectively across both general and remedial programs.

Amount: \$1,083,163

Period of Performance: 6/1/05-5/31/08

• Name of Institution: Pacific Institutes for Research

Principal Investigator: Scott Baker

Co-Principal Investigators: Lana Edwards Santoro, David Chard

Description: The Read Aloud Curriculum in First Grade Classrooms: Furthering Our Understanding of Immediate and Long-Term Impacts and Causal *Influences* – Although much reading instruction in first grade is focused on developing children's word recognition skills, it is becoming increasingly apparent that reading success in third grade depends upon young children developing comprehension skills in the early grades. The researchers have developed and preliminarily evaluated a first-grade read aloud curriculum designed to expose children to narrative and expository text and provide instruction about the structural elements of text, key vocabulary, and how to make connections across related texts. The purpose of this project is to test the effectiveness of this curriculum and to investigate factors that account for its impact, including examining the effects of the intervention on a range of student comprehension and vocabulary outcomes, and the degree to which student engagement during read aloud lessons contributes to learning.

Amount: \$2,885,585

Period of Performance: 9/1/05-8/31/09

Name of Institution: University of Virginia
 Principal Investigator: Laura Justice

Description: Print Referencing Efficacy. Research has shown that there are substantial early differences in children's emergent literacy skills and that those skills contribute to long-term outcomes in children's reading achievement. At the same time, research shows that intervening before children reach elementary school significantly decreases the likelihood of their developing reading difficulties. This research team will implement and rigorously evaluate a preschool literacy intervention designed to facilitate children's early achievements in print knowledge, including names of alphabet letters and the way in which print is organized and carries meaning in texts, including children's writing. The purpose of this project is to complete a systematic and rigorous replication and extension of research showing the effectiveness of the Print-Referencing Intervention in enhancing the literacy of all children, including those at risk of failure.

Amount: \$2,626,659

Period of Performance: 6/1/05-5/31/09

Name of Institution: Boston University
 Principal Investigator: Gloria Waters

Description: Assessment of Comprehension Skills in Older Struggling Readers - The purpose of this project is to develop a new comprehensive, computerized language assessment battery that is organized according to psycholinguistic principles and that can be used to assess the comprehension problems of older readers (students in grades 7-10). The new assessment is called the Comprehensive Assessment of Reading and Listening (CARL) Test. At the conclusion of this project, the research team will have a validated and reliable computerized assessment test that educators can use to identify which comprehension skills are deficient in particular students, to target these deficiencies in focused remediation, and to assess whether the various subcomponents of reading are becoming more accurate, efficient and automatic with instruction.

Amount: \$1,255,025

Period of Performance: 6/1/05-5/31/09

• Name of Institution: University of Houston

Principal Investigator: David Francis

Co-Principal Investigators: Catherine Snow (Harvard University), Diane August (Center for Applied Linguistics)

Description: Diagnostic Assessment of Reading Comprehension: Development and Validation - Currently available tools for the assessment of reading comprehension have limited use in profiling students' strengths and weaknesses in the components of reading comprehension. The purpose of this project is to develop a diagnostic assessment of reading comprehension (DARC) for children in grades 3 through 5 that focuses on the critical components of comprehension. Those components include (1) decoding and word fluency; (2) central comprehension processes such as remembering the text, accessing relevant background knowledge, making text-based inferences, and integrating text-based information with world knowledge; and (3) sensitivity to linguistic variation in the text. Data on the reliability and validity of this new instrument will be collected, and norms for both monolingual English speakers and for English language learners will be established.

Amount: \$1,590,077

Period of Performance: 7/1/05-6/30/09

• Name of Institution: University of Illinois at Chicago

Principal Investigator: Kimberly Lawless **Co-Principal Investigator:** Susan Goldman

Description: Assessing Readers Struggling to Comprehend Multiple Sources of Information — The need to better understand how students make meaning as they read across multiple texts and for teachers to assess whether students are developing appropriate comprehension skills serves as the motivation for this research project. Its purpose is to develop a set of assessments that can diagnose the strategies and skills required for comprehension

of multiple texts and identify where readers struggle in this complex but important task. At the conclusion of this project, the research team will have a rigorously documented taxonomy of comprehension strategies and skills central to multiple text comprehension and a set of assessments and indicators that differentiate among levels of proficiency, are useful in classroom contexts, and provide information for instructional decision making.

Amount: \$1,562,428

Period of Performance: 6/1/05-5/31/09

Cognition and Student Learning

• Name of Institution: Carnegie Mellon University

Principal Investigator: David Klahr **Co-Principal Investigator:** Junlei Li

Description: *Training in Experimental Design:* Developing Scalable and Adaptive Computer-Based Science Instruction - Both national and international assessments, and the extensive body of literature on children's understanding of experimental design, reveal not only that many students from very good schools do poorly on experimental design assessments, but also that there are substantial achievement gaps on these types of items between schools with large proportions of students from low income families and schools with students from predominantly middle and high income families. To improve student learning of scientific thinking in late elementary and middle school science, the research team is developing a computer-based intelligent tutoring system that will provide instruction in experimental design. This intelligent tutoring system provides feedback based on individual learners' knowledge and mastery in real time across a variety of tasks and science content areas.

Amount: \$1,485,318

Period of Performance: 8/1/06-7/31/09

• Name of Institution: Research Foundation of The City University of New York

Principal Investigator: Barry Zimmerman **Co-Principal Investigators:** Bert Flugman, John Hudesman

Description: Enhancing Self-Reflection and Mathematics Achievement of At-Risk Students at an Urban Technical College: A Self-Regulated Learning — Previous research has documented the success of an assessment-for-learning approach in improving student performance, but unfortunately most teachers have no clear methodology (grounded in cognitive science) to assist them in making this instructional transition. The goal of this project is to develop an intervention program that teachers can use to help prepare students to respond to their academic grades as sources of self-regulated learning rather than as indices of personal limitation.

Amount: \$482,496

Period of Performance: 9/1/06-8/31/08

• Name of Institution: The Trustees of Columbia University in the City of New York

Principal Investigator: Janet Metcalfe **Co-Principal Investigator:** Lisa Son

(Barnard College)

Description: The Effect of Metacognition on Children's Control of Their Study and of Their Cognitive Processes – This project will examine children's metacognitive skills, or the ability to accurately monitor one's own learning, and to use this knowledge to regulate one's learning behaviors. By examining children's spontaneous use of metacognitive skills and strategies, the researchers will then be able to devise interventions addressing weaknesses in this area and remediate them in order to improve learning. By building metacognitive skills and control strategies, children could be better positioned to assess their own knowledge so that they can more effectively allocate and organize study time and effort optimally, and to improve learning more generally.

Amount: \$835,709

Period of Performance: 7/1/06-6/30/09

• Name of Institution: University of California, Los Angeles

Principal Investigator: Philip Kellman

Co-Principal Investigator: Christine Massey (University of Pennsylvania)

Description: Integrating Conceptual Foundations in Mathematics through the Application of Principles of *Perceptual Learning* – The objective of this project is to help students in Grades 3-8 develop an integrated mathematical knowledge base in which the domains of measurement and fractions are meaningfully connected to each other and to core concepts of multiplication, division, ratio, and proportion. This interrelated set of mathematical concepts has been selected because it is central to the mathematical standards identified for these grades (NCTM, 2000); it provides essential foundations for higher math learning; expert understanding is characterized by dense connections across these topics; and there is convincing evidence that too few children in U.S. schools are reliably achieving this integrated knowledge base.

Amount: \$1,500,000

Period of Performance: 7/1/06-6/30/09

• Name of Institution: University of Kentucky Research Foundation

Principal Investigator: Elizabeth Lorch

Description: *Teaching the Logic of the Scientific Method in the Fourth Grade* – The purpose of this project is to develop a general intervention for teaching the core logic of the scientific method, that is, the "control of variables" strategy. In the "control of variables" strategy, one variable is manipulated while the others are held constant or controlled, allowing experimenters to conclude that any changes that occur are due to changes in the one variable. A primary theoretical objective is to achieve a better understanding of the roles of direct instruction versus discovery learning in science education.

Amount: \$1,140,201

Period of Performance: 7/1/06-6/30/09

• Name of Institution: University of Washington Principal Investigator: Deborah McCutchen **Description:** Making Meaning: Morphological Processing and Its Contribution to Adolescent and Pre-Adolescent Literacy – Research has begun to document relationships between children's literacy achievement (both reading and writing) and their morphological awareness-that is, the ability to recognize, reflect on, and manipulate meaningful word parts such as roots and suffixes. Much of this work has been correlational, allowing for few causal arguments regarding underlying mechanisms. The goal of this project is to understand further the mechanisms by which morphological insights are used by children to increase their vocabulary and comprehension.

Amount: \$834,155

Period of Performance: 9/16/06-9/15/09

• Name of Institution: University of Wisconsin, Madison

Principal Investigator: Martha Alibali

Co-Principal Investigator: Eric Knuth, Mitchell Nathan, R. Breckinridge Church (Northeastern Illinois University)

Description: Does Visual Scaffolding Facilitate Students' Mathematics Learning? - Visual scaffolding may be important in instructional settings, in which students' comprehension is often challenged by new concepts and unfamiliar terms. However, little is known about how teachers actually use visual scaffolding in instructional communication or whether visual scaffolding influences students' comprehension and learning. This project has three aims: (1) to document how teachers use visual scaffolding in naturalistic instructional communication; (2) to investigate whether visual scaffolding promotes students' comprehension of instructional language, and therefore their learning; and (3) to investigate a possible mechanism by which visual scaffolding may promote learning-namely, by facilitating students' encoding of visual information.

Amount: \$982,736

Period of Performance: 9/1/06-8/31/09

 Name of Institution: Vanderbilt University Principal Investigator: Gautam Biswas

Co-Principal Investigators: Kefyn Catley, Dan Schwartz (Stanford University)

Description: A Learning by Teaching Approach to Help Students Develop Self-Regulatory Learning Skills in Middle School Science Classrooms – The purpose of this project is to develop and test a new form of easily scaled technological support for the development of metacognition, and to examine whether using the metacognitive interventions will be associated with improvement in students' subsequent abilities to learn, in this case the learning of middle school science.

Amount: \$1,499,980

Period of Performance: 7/1/06-6/30/09

 Name of Institution: The University of North Carolina at Chapel Hill

Principal Investigator: Stephen Hooper

Co-Principal Investigator: Nathan Vandergrift

Description: Attention, Memory, and Executive Functions in Written Language Expression in Elementary School Children - Researchers have only begun to understand the factors that contribute to the development of written expression in the formative elementary school years. The primary purpose of this project is to establish a stronger scientific foundation for educational practice within the writing domain by utilizing recent advances in cognitive science and neuroscience to examine: (1) text generation for children at-risk for writing problems and typically developing children; (2) the cognitive underpinnings of writing skills for children at-risk versus those not at-risk for writing problems, and how these relationships change over time; and (3) the impact of an evidence-based treatment program on the developmental trajectories of written expression in children at-risk for writing problems.

Amount: \$1,596,398

Period of Performance: 7/1/06-6/30/10

• Name of Institution: Washington University in St. Louis

Principal Investigator: Henry Roediger, III

Co-Principal Investigators: Mark McDaniel,

Kathleen McDermott

Description: *Test-Enhanced Learning in the* Classroom – Achievement of American students falls behind that of students in many other industrialized countries, especially in science and mathematics. This project builds on earlier work on test-enhanced learning, or the use of frequent quizzes as learning events. Test-enhanced learning has been shown to be highly effective in promoting student learning in laboratory situations. The purpose of this project is to import the Test-Enhanced Learning Program into school settings to examine its efficacy at two different educational levels.

Amount: \$2,964,770

Period of Performance: 8/1/06-7/31/10

Name of Institution: Fordham University
 Principal Investigator: William Whitten
 Co-Principal Investigator: Mitchell Rabinowitz

Description: Guided Cognition of Unsupervised Learning - Teachers generally assign homework to help students learn new information and procedures. From the perspective of cognitive scientists, the value of homework assignments for improving student learning depends on how the assignments are structured. The purpose of this project is to test specific strategies for structuring homework assignments in ways that will increase the likelihood that homework will involve productive study of new material. The overall goal is to determine the conditions under which students adopt cognitive strategies, such as summarizing, asking questions, and considering divergent answers to questions, when engaged in unsupervised study for which specific study tasks are not provided.

Amount: \$623,390

Period of Performance: 6/1/05-5/31/08

Name of Institution: Indiana University
 Principal Investigator: Robert Goldstone
 Co-Principal Investigator: Linda Smith

Description: Grounded and Transferable Knowledge of Complex Systems Using Computer Simulations — In determining how best to support the transfer of knowledge, this research project examines the relation between the specific fact and details through which a phenomenon is presented, and the abstraction of deeper scientific principles underlying the phenomenon. These researchers are developing perceptually based and interactive

computer simulations that provide perceptual support to students as they master abstract scientific principles. At the conclusion of this research project, the team will have developed new curricula and supporting materials for teaching complex systems at the college and K-12 levels.

Amount: \$796,479

Period of Performance: 8/1/05-7/31/08

Name of Institution: Kent State UniversityPrincipal Investigator: John Dunlosky

Co-Principal Investigator: Katherine Rawson

Description: Supporting Efficient and Durable Student Learning – This research team is developing and evaluating the effectiveness of a new method of learning and study called retrieval-feedbackmonitoring (RFM). This new method is inspired by two cognitive principles. First, research has demonstrated that the durability of learning can be improved by requiring learners to study concepts systematically spaced over time instead of trying to master many concepts in a single study session (i.e., "cramming"). Second, study time can be used most efficiently when there is accurate monitoring of what has been learned and what still needs to be learned. The researchers hypothesize that computer-assisted studying based on these principles will improve learning.

Amount: \$868,864

Period of Performance: 6/1/05-5/31/08

• Name of Institution: Michigan State University

Principal Investigator: Jon Star

Co-Principal Investigator: Bethany Rittle-Johnson (Vanderbilt University)

Description: Using Contrasting Examples to Support Procedural Flexibility and Conceptual Understanding in Mathematics – The purpose of this research project is to develop and evaluate an instructional approach that uses contrasting examples in order to foster flexible mathematical problem solving. Contrasting examples of solution procedures are presented during discussions in mathematics classrooms. Students are asked to compare these contrasting examples. This instructional approach

should foster students' awareness of critical features of the procedures and to abstract their common underlying structure.

Amount: \$1,014,175

Period of Performance: 8/16/05-8/15/08

Name of Institution: Northwestern University

Principal Investigator: David Uttal

Co-Principal Investigator: Judy DeLoache

(University of Virginia)

Description: *Understanding and Facilitating* Symbolic Learning - The ability to understand letters, numbers, and mathematical symbols is critically important to learning in school. To facilitate the learning of educational symbol systems, teachers and parents often encourage children to play with a variety of concrete symbolic objects. For example, teachers often use such objects, commonly called manipulatives, to facilitate children's learning of mathematics. It is generally assumed that these objects facilitate learning by helping children to understand concepts before they can understand abstract, symbolic representations. However, this assumption has never been adequately tested, and there are theoretical reasons to believe that merely interacting with an object that is intended to be a symbol may actually be counterproductive. This research team will develop and test interventions designed to help parents and teachers use symbolic objects, such as manipulatives, more effectively.

Amount: \$958,491

Period of Performance: 9/15/05-9/14/08

• Name of Institution: Ohio State University Principal Investigator: Andrew Heckler

Description: Scientific Misconceptions: From Cognitive Underpinning to Educational Treatment — There is a growing need for research that examines barriers to learning science and ways to facilitate science learning. One known barrier to successful science learning is scientific "pre-conceptions" or "misconceptions." A scientific misconception is often defined as everyday beliefs about a natural phenomenon, which are different from an expert

scientist's view of the same phenomenon. These misconceptions are resistant to change. The purpose of this project is to study the cognitive origins of scientific misconceptions and to design interventions to correct them. At the conclusion of this project, the researchers will have a set of interventions that can be used to overcome scientific misconceptions and improve science learning.

Amount: \$933,397

Period of Performance: 9/1/05-8/31/08

Name of Institution: University of Chicago

Principal Investigator: Sian Beilock

Description: Improving the Assessment Capability of Standardized Tests: How High-Stakes Testing Environments Compromise Performance — The purpose of this project is twofold. First, these researchers are examining how stereotype threat undermines women's expression of math skills by examining how testing situations impact performance. Second, building on this set of findings, the researchers are developing and testing, in an education delivery setting, new assessment tools that are designed to reduce the negative effects of stereotype threat. The results of this project should be able to provide new guidance on how standardized assessments can be developed that accurately reflect all students' abilities and potential.

Amount: \$427,786

Period of Performance: 6/9/05-5/31/08

Name of Institution: University of Memphis
 Principal Investigator: Barry Gholson

Co-Principal Investigators: Arthur Graesser,

Wali Abdi

Description: An Implementation of Vicarious Learning with Deep-Level Reasoning Questions in Middle School and High School Classrooms — This research project will compare different versions of an intelligent tutoring system developed by the research team in prior work, AutoTutor, to examine how best to support learning of course content. For example, students will compare the use of AutoTutor in its typical interactive version to a vicarious condition where students listen to

and observe the AutoTutor agent presenting the same course content, but they do not physically interact with the source of the materials. This will enable the research team to determine whether students are equally able to learn course content during interactive and vicarious learning. They are also examining whether mastery of course content can be improved by asking students to generate reasoning questions during study (e.g., "Why is x important?"). The researchers are working with school-aged students in the areas of computer literacy and Newtonian physics.

Amount: \$1,050,000

Period of Performance: 6/1/05-5/31/08

• Name of Institution: University of Southern California

Principal Investigator: Carole Beal

Description: Dynamically Modifying the Learning Trajectories of Novices with Pedagogical Agents — The challenge for science education is that once students settle on a strategy, they will often continue to use the same approach in the future, even if the approach is not effective or efficient. The purpose of this project is to develop an intervention designed to help novice chemistry learners revise their strategy while solving chemistry problems. Building on prior research, this team is developing predictive models of problem solving and using them to provide individualized instruction to novice chemistry learners.

Amount: \$1,220,822

Period of Performance: 7/1/05-6/30/08

• Name of Institution: Carnegie Mellon University

Principal Investigator: Robert Siegler

Description: *Improving Children's Pure Numerical Estimation* – The researchers have developed two interventions-one for preschool children and one for young elementary school children to support the acquisition of linear representations of numerical magnitudes. The purpose of this research project is to test whether learning produced by these interventions lasts over time, generalizes

to other estimation tasks, enhances arithmetic learning, and can be scaled up to the classroom level. At the conclusion of this project, the research team will have validated both instructional interventions for use in one-on-one settings and in whole group instruction.

Amount: \$851,346

Period of Performance: 6/1/05-5/31/08

Name of Institution: Duke University
 Principal Investigator: David Rabiner

Description: A Randomized Trial of Two Promising Interventions for Students with Attention Problems – Attention problems, even when not severe enough to warrant a formal diagnosis of Attention Deficit Hyperactivity Disorder, are strongly associated with academic achievement difficulties and have an adverse impact on school success for thousands of students each year. Currently, there are no interventions that have been clearly established to enhance attention and achievement among students with attention difficulties. The purpose of this project is to conduct a rigorous, schoolbased evaluation of two promising interventions for inattentive students. Documenting the efficacy of either approach, or their combination, has important implications for helping students whose academic achievement is significantly impaired by inattentive behavior in the classroom.

Amount: \$1,150,719

Period of Performance: 7/1/05-6/30/08

• Name of Institution: Northern Illinois University

Principal Investigator: M. Anne Britt

Description: Creating a Usable Environment to Teach Argument Comprehension and Production Skills — Argumentation is a central component of social and personal decision-making, as well as a fundamental skill required by many class assignments and by entrance exams to postsecondary education (e.g., SAT, LSAT, and GRE). While our education system expects students to acquire the ability to comprehend and produce written arguments, ensuring this outcome is not the purview of any specific discipline. Not surprisingly, many

students leave high school unable to comprehend and write arguments. The purpose of this project is to understand students' argumentation strengths and weaknesses and to develop and evaluate computer-based instructional modules to improve their argument comprehension and production skills. These modules will be available online as stand-alone lessons and as a course presented in the context of a simple role playing game. The final product will include teacher support materials.

Amount: \$574,931

Period of Performance: 8/1/05-7/31/08

Teacher Quality: Mathematics and Science Education

• Name of Institution: The Regents of the University of California

Principal Investigator: Roland Tharp (University of California, Berkeley)

Co-Principal Investigator: Trish Stoddard (University of California, Santa Cruz)

Description: *Integrating Science and Diversity* Education: A Model of Pre-Service Elementary Teacher Preparation – Using sociocultural theory and research, the Center for Research on Education, Diversity and Excellence has identified Five Pedagogy Standards to teach students at risk for educational failure: (1) joint productive activity among teacher and students; (2) developing language and literacy across the curriculum; (3) connecting school to students' lives; (4) teaching complex thinking; and (5) engaging students through dialogue, especially the instructional conversation. The purpose of this project is to implement and test an experimental model of pre-service elementary science teacher education based on the Five Standards for Effective Pedagogy, in order to prepare elementary school teachers to teach science to the increasingly diverse student body in U.S. elementary schools.

Amount: \$1,473,522

Period of Performance: 7/1/06-6/30/09

Name of Institution: LessonLab, Inc.
 Principal Investigator: Nicole Kersting
 Co-Principal Investigators: Rosella Santagata, Karen Givvin

Description: Using Video Clips of Classroom Instruction as Item Prompts to Measure Teacher Knowledge of Teaching Mathematics: Instrument Development and Validation - Over the past two decades researchers have developed teaching standards, detailing what teachers should know and be able to do. However, many of the assessments of teacher knowledge currently available assess low-level or marginally relevant knowledge, and not teachers' deep knowledge of subject matter and actual teaching skills. In addition, many assessments of teacher knowledge have been criticized for technical shortcomings relating to the instruments' reliability, inter-rater reliability, or validity, further underscoring the need for better assessments. To address existing needs, this study will take a novel assessment approach to measure teachers' knowledge of teaching mathematics. Following up on promising pilot data, this project will develop video-analysis assessments for three pre-algebra topic areas: (1) fractions, (2) ratio and proportion, and (3) equations.

Amount: \$1,413,121

Period of Performance: 9/1/06-8/31/10

 Name of Institution: Allegheny Singer Research Institute

Principal Investigator: Erdosne Toth

Description: Mentoring Teachers Through

Pedagogical Content Knowledge Development —

High school life science teachers often lack
in-depth knowledge in specialized topics of life
science. Researchers will develop and test the
potential efficacy of professional development
modules, including both content and pedagogy,
to address this need. The study will focus on novel
science content—genetics and biotechnology, and
their ethical implications; and how to turn novel
content knowledge into effective teaching and
improved student achievement. The project will
explore models of long-term mentoring via face-toface and more distant on-line interaction.

Amount: \$957,825

Period of Performance: 9/1/05-8/31/08

• Name of Institution: Education

Development Center

Principal Investigator: Nancy Clark-Chiarelli

Co-Principal Investigator: Jess Gropen

Description: Assessing the Potential Impact of a Professional Development Program in Science on Head Start Teachers and Children – English language learners and students from low-income homes perform lower in science on average than their peers. Researchers will develop and test the potential efficacy of a professional development program in science, Foundations of Science Literacy (FSL), on Head Start teachers and children in the Boston area of Massachusetts.

Amount: \$1,367,500

Period of Performance: 7/1/05-6/30/08

Name of Institution: University of Nebraska
 Principal Investigator: Elizabeth Doll

Co-Principal Investigators: Ron Bonnstetter, Roger Bruning, Christy Horn

Description: Evolving Inquiry: An Experimental Test of a Science Instruction Model for Teachers in Rural, Culturally Diverse Schools — This project will test the potential efficacy of a technology-supported professional development program for rural 5th-8th grade science teachers from two rural Nebraska Educational Service Units (ESUs). The program is adapted for rural school populations from a program with promising results in an urban setting.

Amount: \$1,261,684

Period of Performance: 8/22/05-8/21/08

• Name of Institution: University of Toledo

Principal Investigator: Carla Johnson

Co-Principal Investigator: Jamison Fargo (Utah State University)

Description: *Utah's Improving Science Teacher Quality Initiative* – The purpose of this project is to design and test the potential efficacy of a

professional development program for middle school science teachers with an emphasis on improving the science achievement of Latino students.

Amount: \$913,620

Period of Performance: 6/10/05-5/31/08

• Name of Institution: South Carolina Department of Education

Principal Investigator: Christina Schneider

Description: Investigating the Efficacy of a Professional Development Program in Classroom Assessment for Middle School Reading and Mathematics — The purpose of this project is to conduct a replication field trial that will determine how best to implement and deliver standardized professional development in classroom assessment that meets teachers' needs in math and reading across grade levels.

Amount: \$1,680,625

Period of Performance: 6/15/05-6/14/09

• Name of Institution: SRI International

Principal Investigator: William Penuel

Description: Comparing the Efficacy of Three Approaches to Improving Teaching Quality in Science Education: Curriculum Implementation, Design, and Adaptation – The purpose of this project is to compare the efficacy of three competing approaches to improving teaching in middle school science education: (1) training to use a specific curriculum; (2) training to develop curriculum units aligned to local standards; and (3) training to adapt a curriculum to be aligned to local standards.

Amount: \$1,864,415

Period of Performance: 6/1/05-5/31/09

 Name of Institution: University of South Florida

Principal Investigator: Kathryn Borman

Co-Principal Investigators: Kim Davis (District School Board of Pasco County), Sherri Steffen (Teaching SMART and Girls Inc., Rapid City)

Description: Replication and Outcomes of the Teaching SMART® Program in Elementary Science

Classrooms – This project will study the efficacy of Teaching SMART*, a widely used professional development program for elementary school teachers, on improving teacher performance and student learning in science education. The study will also identify instructional methodologies and strategies that are effective in improving teacher performance and, in turn, student achievement.

Amount: \$2,408,168

Period of Performance: 8/1/05-7/31/09

Teacher Quality: Reading and Writing

• Name of Institution: California State University Long Beach Foundation

Principal Investigator: Claude Goldenberg

Description: Standards-based Differentiated ELD Instruction to Improve English Language Arts Achievement for English Language Learners - A critical piece in addressing the English literacy development of English language learners lays in professional development for teachers that gives them: (1) a deeper understanding of how English Language Development standards can be used to support students' acquisition of the English language arts standards; and (2) practical tools and techniques to help English language learners achieve the standards. The purpose of this project is to obtain preliminary evidence for the impact of a recently developed English Language Development professional preparation program for in-service teachers of English language learners.

Amount: \$991,630

Period of Performance: 7/1/06-6/30/08

• Name of Institution: Research Foundation of the State University of New York

Principal Investigator: Donna Scanlon

Co-Principal Investigators: Lynn Gelzheiser, Frank Vellutino, Virginia Goatley

Description: Enhancing Knowledge Related to Research-Based Early Literacy Instruction Among

Pre-Service Teachers – Research suggests that good early literacy instruction can dramatically improve student achievement. Despite the acknowledged importance of teachers, little research has directly focused on pre-service teacher education, or on ways to enhance teacher's problem-solving skills as they relate to the needs of children who struggle with literacy acquisition. In the current project, the researchers plan to develop a set of multimedia materials that can be used in the context of preservice language arts methods courses to enhance pre-service teacher preparation.

Amount: \$1,440,551

Period of Performance: 7/1/06-6/30/09

 Name of Institution: The Regents of the University of California

Principal Investigator: Carol Olson (University of California, Irvine)

Description: The Pathway Project: A Cognitive Strategies Approach to Reading and Writing Instruction for Teachers of Secondary English Language Learners — Research suggests that good early literacy instruction can dramatically improve student achievement. Despite the acknowledged importance of teachers, little research has directly focused on pre-service teacher education, or on ways to enhance teacher's problem-solving skills as they relate to the needs of children who struggle with literacy acquisition. In the current project, the researchers plan to develop a set of multimedia materials that can be used in the context of pre-service language arts methods courses to enhance pre-service teacher preparation.

Amount: \$2,942,842

Period of Performance: 7/1/06-6/30/10

Name of Institution: University of Pittsburgh
 Principal Investigator: Lindsay Clare Matsamura

Co-Principal Investigators: Brian Junker (Carnegie Mellon University), Lauren Resnick, Donna DiPrima Bickel

Description: Content-Focused CoachingSM for High Quality Reading Instruction — Finding new strategies for building teachers' capacity to teach reading comprehension well is a significant challenge. One way that school districts across

the country have responded to this challenge has been to hire additional, presumably more skilled, teachers as "instructional coaches." However, there is no agreed upon definition of the coaching job, and the actual tasks that coaches perform vary widely. This project will implement and study a structured coaching program that is designed to improve reading comprehension instruction in the upper elementary grades.

Amount: \$5,946,864

Period of Performance: 7/1/06-6/30/10

• Name of Institution: WestEd

Principal Investigator: Cynthia Greenleaf

Co-Principal Investigators: Steve Schneider, Joan Herman (University of California, Los Angeles)

Description: A Randomized Controlled Study of the Efficacy of Reading Apprenticeship Professional Development for High School History and Science *Teaching and Learning* – Many students who reach middle and high school do not possess sufficient reading skills to learn new knowledge when reading content texts. In the same vein, many subjectarea teachers in middle and secondary schools are ill-prepared to teach reading to students who need extra help in deciphering complex subjectmatter text books. The purpose of this project is to find out how well the Reading Apprenticeship professional development program can improve teachers' integration of reading instruction into high school science and history and the extent to which it increases student reading and content proficiency.

Amount: \$2,997,972

Period of Performance: 1/1/06-12/31/09

• Name of Institution: Florida State University

Principal Investigator: Alysia Roehrig

Co-Principal Investigators: Mary Brownell (University of Florida), Christopher Schatschneider, Joseph Torgesen

Description: Identifying the Conditions Under Which Large Scale Professional Development Policy Initiatives are Related to Teacher Knowledge, Instructional Practices, and Student Reading Outcomes – The purpose of this study is to identify

professional development activities and coaching practices associated with Reading First efforts that predict teacher and student outcomes. The teacher outcomes of interest are knowledge of reading instruction and use of instructional practices congruent with research on reading. The student outcomes of interest are oral reading fluency, reading comprehension, and phonological awareness skills.

Amount: \$500,000

Period of Performance: 6/1/05-5/31/07

• Name of Institution: Success for All Foundation, Inc.

Principal Investigator: Nancy Madden

Description: Embedded Classroom Multimedia: Improving Implementation Quality and Student Achievement in a Cooperative Writing Program — The research will develop and evaluate the potential efficacy of a program to help teachers transfer effective writing methods from the workshop to the classroom using multimedia content embedded in classroom instruction, teacher's learning communities, well-structured manuals and materials, cooperative learning, and metacognitive writing strategies.

Amount: \$1,498,045

Period of Performance: 10/1/05-9/30/08

Name of Institution: Texas A&M University
 Principal Investigator: Deborah Simmons
 Co-Principal Investigators: William Rupley,

Sharon Vaughn (University of Texas at Austin)

Description: Enhancing the Quality of Expository Text Instruction through Content and Case-Situated Professional Development – In order for professional development to be worthwhile, it must address the needs of the teachers it is meant to serve. Often times, this is not the case. The studies in this project focus specifically on the instructional strategies of social studies teachers and the reading comprehension of 4th-grade students. The purpose of this development project is to refine and evaluate the potential efficacy of content- and case-situated professional development linking evidence-based

practices with the experiences and needs of social studies teachers.

Amount: \$1,498,530

Period of Performance: 9/1/05-8/31/08

• Name of Institution: University of Texas at San Antonio

Principal Investigator: Misty Sailors

Co-Principal Investigator: Janis Harmon

Description: Teaching Teachers to Teach Critical Reading Strategies (CREST) Through an Intensive *Professional Development Model* – The purpose of this development project is to develop and test a model of professional development that demonstrates the potential to change teacher behavior in teaching students to be strategic readers and improving student reading achievement. The Critical Reading Strategies (CREST) professional development intervention includes strategic reading behaviors that teachers will be taught: word identification and word knowledge strategies; and comprehension strategies for before, during, and after reading. In addition, teachers will be asked to engage in professional journal writing, "critical friends" networks, intensive support by an expert in strategic reading, discussion about student progress based on student work data, and creation of new Webquests to support strategy instruction.

Amount: \$926,814

Period of Performance: 10/1/05-9/30/08

• Name of Institution: Education Development Center, Inc.

Principal Investigator: Nancy Clark-Chiarelli

Description: Examining the Efficacy of Two Models of Preschool Professional Development in Language and Literacy — Children who come from homes where oral language interactions are sparse enter school at a disadvantage from peers who come from homes where the opposite is true. In addition, many early childhood teachers lack a solid foundation in early teaching and learning pedagogy. Taken as a whole, these conditions warrant providing teachers with early literacy professional development to ensure that young

children will benefit from instruction. However, little research has been conducted to rigorously evaluate the impact of different early literacy professional development programs. The purpose of this project is to examine the efficacy of two approaches to implementing empirically based early literacy professional development, Literacy Environment Enrichment Program (LEEP), and Technology-Enhanced LEEP (T-LEEP).

Amount: \$2,834,272

Period of Performance: 7/1/05-6/30/09

 Name of Institution: Regents of the University of Michigan

Principal Investigator: Joanne Carlisle

Co-Principal Investigator: Brian Rowan

Description: Assessment of Pedagogical Knowledge of Teachers of Reading – This project will develop and validate measures of pedagogical content knowledge in early reading and to investigate the relationship between elementary school teachers' pedagogical content knowledge of reading, their instructional practices, and their students' reading achievement.

Amount: \$1,677,575

Period of Performance: 9/1/05-8/31/09

Name of Institution: Utah State University
 Principal Investigator: D. Ray Reutzel
 Co-Principal Investigator: Janice Dole (University of Utah)

Description: Connecting Primary Grade Teacher Knowledge to Primary Grade Student Achievement: Developing the Evidence-Based Reading/Writing Teacher Knowledge Assessment System — The purpose of this assessment project is to develop a comprehensive, and practical primary-grade measure of teachers' knowledge about effective, evidence-based reading and writing instruction and validate the measure against students' reading and writing achievement.

Amount: \$926,814

Period of Performance: 10/1/05-9/30/08

Unsolicited Proposals

• Name of Institution: Syracuse University

Principal Investigator: Benita Blachman **Co-Principal Investigator:**

Christopher Schatschneider

Description: A One-Year Follow-Up of Evidence-Based Early Reading Intervention Provided by Kindergarten and First Grade Teachers — This research will build on a previous project that was designed to address the gap that exists between research and practice in early reading interventions. This study will address unanswered questions regarding the timing and duration of early intervention needed for maximum benefit and investigate whether responsiveness to treatment is influenced by different beginning skill levels and classroom behavior. The relationship between teacher instruction, school context and student outcomes will also be examined.

Amount: \$199,897

Period of Performance: 8/1/05-7/31/07

• Name of Institution: Vanderbilt University Principal Investigator: David Cordray

Description: Assessing Intervention Fidelity in Randomized Field Experiments – Under this grant, the research team will (a) "take stock," of what has been learned about assessing intervention fidelity by conducting a systematic review of the methods used in past fidelity assessments; (b) reanalyze several existing randomized field trials (RFTs) with fidelity assessments to explore and refine ways of assessing fidelity; and (c) making use of what is learned from (a) and (b), gather and analyze new data within a recently funded cluster randomized trial. The products of this research (e.g., data on reliability and validity of fidelity measures, evidence about what methods "work best," and algorithms for constructing indices) will be made available to the education research community on the VU website and in peer reviewed papers, presentations, and other publications.

Amount: \$1,495,133

Period of Performance: 9/30/06-9/29/09

• Name of Institution: American Institutes for Research

Principal Investigator: Harold Doran **Co-Principal Investigators:** Douglas Bates, Gary Phillips

Description: The Consequences of Various Psychometric Decisions on Teacher Effects Estimated From Value-Added Models — Under this grant, the research team is empirically examining the degree to which some psychometric decisions made in calibrating student response data on state assessment programs influence the teacher effects estimated under VAM. The study will examine the impacts on VAM teacher effect estimates for one-, two- and three-parameter models and comparing vertically scaled versus not vertically scaled student scores, using maximum likelihood estimation (MLE) procedures.

Amount: \$167,239

Period of Performance: 9/30/06-1/29/08

• Name of Institution: Council of the Great City Schools

Principal Investigator: Jason Snipes

Description: Senior Fellowship in Urban Education Research – Under this grant, the Council of the Great City (CGCS) is establishing a Senior Fellowship in Urban Education awards program. The Fellowships are designed to facilitate collaboration between large urban school districts and senior researchers with established track records of high quality research. In particular, the Council is conducting three rounds of fellowship awards. Each round includes \$100,000 stipends plus project support for each of three fellows. A Research Advisory Committee (RAC) composed of senior scholars in education and practitioners with experience in leadership positions in urban districts is developing research priorities and specific criteria for awards. The RAC also assists in the selection of awardees. The CGCS will provide IES with reports on the fellowships and research projects undertaken.

Amount: \$2,483,740

Period of Performance: 10/1/06-6/30/11

• Name of Institution: University of Washington Principal Investigator: Dan Goldhaber

Description: *Is It Just A Bad Class?* – Examining the Size and Stability of Teacher Performance Estimates. Under this grant, a University of Washington (UW) research team is studying the year-to-year stability of teacher effects over a nine year period to determine how various measures of teacher performance vary over time, as well as how they vary across different teaching contexts. The study uses data on all teachers and students in North Carolina over the period of school years 1995-96 through 2003-04 and uses a variety of teacher performance measures.

Amount: \$428,590

Period of Performance: 9/30/06-12/31/08

Small Business Innovation Research

• Name of Organization: Whimsica Toys, Inc.

Principal Investigator: Daniel Savage

Description: *Cinematic Sciences* – The purpose of this project is to develop an online 3D simulation platform with real behavioral programming for physical sciences to improve students' physics understanding. Research will be conducted to test the efficacy of the intervention on students' standardized test scores in science.

Amount: \$849,881

Period of Performance: 12/22/06-12/21/08

• Name of Institution: AbleLink Technologies

Principal Investigator: Daniel Davies

Description: *Rocket Reader* – The project developed a simplified PDA-based portable reading system to enable access to audio books and electronic documents for individuals with intellectual disabilities. Research will be conducted to test the efficacy of the intervention on students' listening comprehension.

Amount: \$500,000

Period of Performance: 7/1/05-6/30/07

Name of Institution: AbleLink Technologies

Principal Investigator: Steven Stock

Description: Listening Comprehension Assessment and Instruction (LCAI) System – This project is developing an independently usable, internet based multimedia software system to enable self-paced assessment, instruction and practice in listening comprehension/auditory recall for non-readers. Research will be conducted to test the efficacy of the intervention on students' listening comprehensions.

Amount: \$500,000

Period of Performance: 7/1/05-6/30/07

Name of Institution: Hope, Incorporated
 Principal Investigator: Susan Watkins

Description: *Project Prepare* – This project is developing a computer software to prepare deaf preschoolers and kindergartners to read by teaching early critical service words. Research will be conducted to test the efficacy of the intervention on deaf students' vocabulary.

Amount: \$499,594

Period of Performance: 9/30/05-9/30/07

• Name of Institution: Rockman et al., Inc.

Principal Investigator: Beverly Farr

Description: *School Tracker* – This project is developing an online tool to support and enhance the school improvement process. Research will be conducted to test the efficacy of the intervention on school improvement outcomes.

Amount: \$497,774

Period of Performance: 9/1/05-8/31/07

Name of Institution: Seward Incorporated

Principal Investigator: Gregory Sales

Description: *Teaching Reading Comprehension Strategies* – This project developed a digital and print materials professional development package for teachers to teach reading comprehension.

Research will be conducted to test the efficacy of the intervention on students' state reading test scores.

Amount: \$500,000

Period of Performance: 9/1/05-8/31/07

• Name of Institution: Sirius Thinking, LTD

Principal Investigator: Daniel Shanahan

Description: Using Television to Expand the Vocabulary of Beginning Readers – This project embeds vocabulary words inside episodes of a popular children's television program. Research will be conducted to test the efficacy of the intervention on students' vocabulary.

Amount: \$500,000

Period of Performance: 9/1/05-8/31/07

• Name of Institution: Tactus Technologies

Principal Investigator: Kevin Chugh

Description: Applying Virtual Surgery Principles to Dissection Simulation – This project develops a virtual frog dissection software. Research will be conducted to test the efficacy of the intervention on students' knowledge of anatomy and biological functionings.

Amount: \$500,000

Period of Performance: 8/16/05-8/15/07

Contracts

• Name of Organization: Mathematica Policy Research, Inc.

Description: The purpose of this project is to promote positive social and character development and reduce antisocial behavior in school. The approach is to collect and analyze comparable outcome data across seven social and character development intervention programs.

Amount: \$12,464,615

Period of Performance: 9/24/03-8/31/07

• Name of Organization: Mathematica Policy Research, Inc.

Description: The purpose of this project is to improve the quality of preschool education. The approach is to collect and analyze comparable outcome data across six randomized trials

evaluating the impact of specific preschool curricula on child outcomes.

Amount: \$6,086,996

Period of Performance: 6/6/03-6/9/07

• Name of Organization: Research Triangle Institute (RTI)

Description: The purpose of this project is to improve the quality of preschool education. The approach is to collect and analyze comparable outcome data across seven randomized trials evaluating the impact of specific preschool curricula on child outcomes.

Amount: \$7,668,706

Period of Performance: 5/13/02-4/14/07
Name of Organization: Optimal Solutions Group, LLC

Description: Logistical and analytic support for IES.

Amount: \$3,038,628

Period of Performance: 8/4/05-8/3/08

Interagency Agreements

• Name of Organization: U.S. Army Medical Research Acquisition Activity

Description: Interagency agreement for services to contract for scientific peer review management and administrative support for IES research competitions in 2006.

Amount: \$2,588,000

Period of Performance: 5/9/06-5/8/07

• Name of Organization: U.S. Army Medical Research Acquisition Activity

Description: Interagency agreement for services to contract for scientific peer review management and administrative support for IES research competitions in 2005.

Amount: \$2,500,000

Period of Performance: 5/9/05-5/8/06

National Center for Education Statistics (NCES)

NCES carries out activities of collecting, analyzing, and disseminating statistics on the condition of education primarily through contracts.

Assessment Division

National Assessment of Adult Literacy (NAAL) – The NAAL provides nationally representative assessments of English language literacy skills of American adults. The NAAL seeks to: describe the status of adult literacy in the U.S., report on national trends, and identify relationships between literacy and selected characteristics of adults. NCES has conducted adult literacy assessments since 1985.

• Name of Organization: Westat, Inc.

Amount: \$19,497,197

Period of Performance: 4/1/01-8/1/07

• Name of Organization: Westat, Inc.

Amount: \$14,316,804

Period of Performance: 9/29/05-9/28/10

• Name of Organization: American Institutes for Research (AIR)

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Amount: \$5,854,619

Period of Performance: 8/30/99-12/31/06

National Assessment of Educational Progress (NAEP) – The NAEP, also known as "the Nation's Report Card," is the only nationally representative and continuing assessment of what America's students know and can do in various subject areas.

Since 1969, assessments have been conducted periodically in reading, mathematics, science, writing, U.S. history, civics, geography, and the arts.

• Name of Organization: American Institutes for

Research (AIR)

Amount: \$5,591,430

Period of Performance: 5/10/02-5/9/07

• Name of Organization: American Institutes for

Research (AIR)

Amount: \$5,691,195

Period of Performance: 9/25/03-9/25/08

• Name of Organization: Council of Chief State

School Officers (CCSSO)

Amount: \$1,399,563

Period of Performance: 9/16/04-9/17/08

• Name of Organization: Westat, Inc.

Amount: \$24,882,599

Period of Performance: 9/26/03-9/25/08

• Name of Organization: Education Testing

Service (ETS)

Amount: \$91,954,137

Period of Performance: 9/17/02-4/16/08

• Name of Organization: Westat, Inc.

Amount: \$152,620,521

Period of Performance: 9/16/02-9/15/07

• Name of Organization: NCS Pearson, Inc.

Amount: \$83,996,769

Period of Performance: 9/16/02-9/15/07

• Name of Organization: American Institutes for

Research (AIR)

Amount: \$8,684,411

Period of Performance: 9/16/02-9/15/07

 Name of Organization: Government Micro Resources, Inc. (GMRI)

Amount: \$12,752,686

Period of Performance: 9/16/02-9/15/07

Name of Organization: Hager Sharp

Amount: \$12,007,269

Period of Performance: 9/20/02-9/19/07

• Name of Organization: Human Resources

Research Organization **Amount:** \$9,271,794

Period of Performance: 9/24/02-9/23/07

• Name of Organization: Windwalker Corporation

Amount: \$387,978

Period of Performance: 9/15/04-9/30/06

• Name of Organization: DoD Education Activity

Amount: \$125,000

Period of Performance: 8/15/05-8/14/06

• Name of Organization: Cogent, Inc.

Amount: \$1,169,407

Period of Performance: 9/29/05-9/28/06

• Name of Organization: American Institutes for

Research (AIR)

Amount: \$30,000,000

Period of Performance: 9/30/05-12/31/10

Early Childhood, International & Crosscutting Studies Division

Early Childhood Longitudinal Study (ECLS) – The ECLS program is sponsored primarily by NCES in collaboration with other federal agencies and organizations. The program is comprised

of two longitudinal studies: the Early Childhood Longitudinal Study, Kindergarten Class of 1998-99 (ECLS-K) and the Early Childhood Longitudinal Study, Birth Cohort (ECLS-B). Combined, these studies provide detailed information on children's health, early care and early school experiences. The ECLS-K began in fall of 1998 with a nationally representative sample of approximately 21,000 kindergartners from about 1,000 kindergarten programs, both public and private. These children will be followed longitudinally through the eighth grade, with data collections in the fall and spring of kindergarten and first grade, in the spring of third and fifth grade, and follow-ups in eighth grade. The ECLS-B includes a nationally representative sample of approximately 14,000 children born in the calendar year 2001 who will be followed longitudinally from birth through kindergarten entry, with data collected from the child's birth certificate and when the children were about 9 months of age, 2 years of age, preschoolers, and kindergartners.

• Name of Organization: Research Triangle

Institute (RTI)

Amount: \$20,800,000

Period of Performance: 3/25/03-5/30/07

• Name of Organization: Research Triangle

Institute (RTI)

Amount: \$17,000,000

Period of Performance: 7/7/04-7/11/09

• Name of Organization: Westat, Inc.

Amount: \$29,000,000

Period of Performance: 8/15/01-6/30/06

• Name of Organization: Westat, Inc.

Amount: \$13,600,000

Period of Performance: 9/14/05-9/13/09

Name of Organization: Westat, Inc.

Amount: \$40,012,997

Period of Performance: 12/31/97-12/31/06

Quick-Response Information System (QRIS) – QRIS supports quick, ad hoc surveys on issues not covered by NCES's large recurring surveys. It includes the Fast Response Survey System (FRSS) and Postsecondary Education Quick Information System (PEQIS). FRSS was established in 1975 to collect and report data on key education issues at the elementary and secondary levels. Findings from FRSS surveys have been included in congressional reports, testimony to congressional subcommittees, NCES reports, and other U.S. Department of Education reports. The findings are also often used by state and local education officials. PEQIS serves policy analysts, program planners, and decision makers in postsecondary education. In addition to obtaining information on emerging issues quickly, PEQIS surveys are also used to assess the feasibility of developing large-scale data collection efforts on a given topic or to supplement other NCES postsecondary surveys.

• Name of Organization: Westat, Inc.

Amount: \$9,730,924

Period of Performance: 9/30/04-9/29/09

International Comparisons (IC) – NCES supports a variety of activities to provide statistical data for cross-national comparisons of education. These activities focus on two major areas: indicators and assessments. For the Indicators of National Education Systems (INES) project, the United States, the Organization for Economic Cooperation and Development (OECD), and other countries collaborate to develop comparable measures of schools and education, from student enrollment and teacher salaries to graduation rates. The United States also participates in several international assessments, including: the Trends in International Mathematics and Science Study (TIMSS) and the Progress in International Reading Literacy Study (PIRLS), both conducted by the International Association for the Evaluation of Educational Achievement (IEA); the OECD's Program for International Student Assessment (PISA); and the Adult Literacy and Lifeskills Survey (ALL) conducted by Statistics Canada and the OECD.

 Name of Organization: Organization for Economic Cooperation and Development (OECD)

Amount: \$140,000

Period of Performance: 6/23/05-12/31/05

 Name of Organization: Organization for Economic Cooperation and Development (OECD)

Amount: \$100,000

Period of Performance: 6/1/06-5/31/07

• Name of Organization: American Institutes for

Research (AIR)

Amount: \$7,500,000

Period of Performance: 8/30/99-8/29/09

Progress in International Reading Literacy Study (PIRLS) - PIRLS is a large international comparative study of the reading literacy of young students. Reading literacy is one of the most important abilities students acquire as they progress through their early school years. It is the foundation for learning across all subjects, it can be used for recreation and for personal growth, and it equips young children with the ability to participate fully in their communities and the larger society. The PIRLS study focuses on the achievement and reading experiences of children in 35 countries in grades equivalent to fourth grade in the United States. The study includes a written test of reading comprehension and a series of questionnaires focusing on the factors associated with the development of reading literacy.

• Name of Organization: IEA/Boston College

Amount: \$1,500,000

Period of Performance: 9/28/04-9/29/08

Program for International Student Assessment (PISA) – PISA, began in 2000. The program focuses on 15-year-olds' capabilities in reading

literacy, mathematics literacy, and science literacy. PISA 2006 data collection has been completed, with results to be released in December 2007. In the United States, this age corresponds largely to grade 9 and 10 students. PISA also includes measures of general or cross-curricular competencies such as learning strategies. PISA emphasizes skills that students have acquired as they near the end of mandatory schooling. PISA is currently being administered every three years. PISA 2000 focused on reading literacy, PISA 2003 focused on mathematics literacy, and in 2006, PISA focused on science literacy. In addition, PISA 2003 reported on problem-solving skills. PISA is coordinated by the Organization for Economic Cooperation and Development (OECD), an intergovernmental organization of industrialized countries.

• Name of Organization: Research Triangle Institute (RTI)

Amount: \$7,995,778

Period of Performance: 8/25/04-8/29/09

 Name of Organization: Organization for Economic Cooperation and Development (OECD)

Amount: \$980,000

Period of Performance: 8/28/05-8/27/06

• Name of Organization: Organization for Economic Cooperation and Development (OECD)

Amount: \$1,000,000

Period of Performance: 6/24/06-6/23/07

Adult Literacy and Lifeskills (ALL) – The Adult Literacy and Lifeskills (ALL) Survey is an international comparative study designed to provide participating countries, including the United States, with information about the skills of their adult populations. ALL measured the literacy and numeracy skills of a nationally representative sample from each participating country. On a pilot basis, ALL also measured adults' problemsolving skills and gathered information on their

familiarity with information and communication technologies. ALL builds on the foundation of earlier studies of adult literacy.

• Name of Organization: Statistics Canada

Amount: \$405,000

Period of Performance: 6/7/05-5/31/06

Trends in International Mathematics and Science Study (TIMSS) – The Trends in International Mathematics and Science Study (TIMSS) provides reliable and timely data on the mathematics and science achievement of U.S. students compared to that of students in other countries. TIMSS data has been collected in 1995, 1999, and 2003. The United States will next collect TIMSS data in spring 2007.

• Name of Organization: International Association for the Evaluation of Educational Achievement (IEA)

Amount: \$3,351,638

Period of Performance: 9/13/02-9/15/08

• Name of Organization: Windwalker Corporation

Amount: \$5,179,025

Period of Performance: 9/30/05-9/29/09

• Name of Organization: Westat, Inc.

Amount: \$31,732,475

Period of Performance: 2/1/99-1/13/08

National Household Education Survey (NHES) – The NHES provides descriptive data on the educational activities of the U.S. population and offers researchers, educators, and policymakers a variety of statistics on the condition of education in the United States. The NHES surveys cover learning at all ages, from early childhood to school age through adulthood. The most recent data

collection in 2005 consisted of three surveys: Adult Education, Early Childhood Program Participation, and After-School Programs and Activities.

• Name of Organization: Westat, Inc.

Amount: \$11,600,000

Period of Performance: 6/9/03-6/9/08

Early Childhood, International & Crosscutting Studies Division General Programs

Name of Organization: Child Trends

Description: Crosscutting Education Data Analysis – These funds provide ongoing support for data on various programs including planning, technical, and administrative support.

Amount: \$1,200,000

Period of Performance: 9/26/03-5/31/07

• Name of Organization: Global Insight, Inc.

Description: Education Modeling System/ Projections Data and Model Updates – Produces projections of education statistics using the NCES Education Modeling System. The contract is used to (1) update the System's data banks; (2) purchase economic data used in the production of projection; (3) execute the forecasting models; (4) revise model specifications; (5) extract projected data and rates; and (6) upgrade the system.

Amount: \$1,500,000

Period of Performance: 6/10/03-6/9/08

• Name of Organization: Bureau of the Census **Description:** *Current Population Survey (CPS)* – for collecting school enrollment information on the CPS.

Amount: \$114,700

Period of Performance: 5/17/05-5/16/06 and

6/1/06-5/31/07

• Name of Organization: Bureau of the Census Description: *Title I funding* – Census produces the small area estimates of poverty needed to allocate Title I funding to school districts. Made with funds from the Office of Elementary and Secondary Education.

Amount: \$3,436,402

Period of Performance: 9/1/05-8/31/06

• Name of Organization: Bureau of the Census

Description: *Title I funding* – Census produces the small area estimates of poverty needed to allocate Title I funding to school districts. Made with funds from the Office of Elementary and Secondary Education.

Amount: \$3,437,280

Period of Performance: 9/1/06-8/31/07

Elementary/Secondary & Library Studies Division

Library Statistics Program – The National Center for Education Statistics (NCES) initiated and funded a nation-wide library statistics program in 1989. NCES works collaboratively with the Census Bureau and the U.S. National Commission on Libraries and Information Science (NCLIS) to plan the content of four surveys and to collect, process, and disseminate the data. The surveys' topics are: Academic Libraries serving degree-granting institutions of higher education; Public Libraries supported by public funds to serve communities, districts or regions; School Library Media Centers that are organized collections of printed, audiovisual, and/or computer resources in an elementary or secondary school and make resources and services available to students, teachers, and administrators; and State Library Agencies (StLAs), the official agencies charged with state-wide library development and the administration of federal funds authorized by the Library Services and Technology Act (LSTA). StLAs provide important reference and information services to state government and administer the state library and special operations such as state archives, libraries

for the blind and physically handicapped, and the State Center for the Book.

• Name of Organization: Westat, Inc.

Amount: \$109,405

Period of Performance: 7/31/01-12/31/04

 Name of Organization: U.S. National Commission on Libraries and Information Science

Amount: \$200,000

Period of Performance: 7/15/05-9/30/05

 Name of Organization: U.S. National Commission on Libraries and Information Science

Amount: \$150,000

Period of Performance: 6/30/06-9/30/06

Common Core of Data (CCD) – The Common Core of Data (CCD) is a major NCES program that annually collects fiscal and non-fiscal data about all public schools, public school districts and state education agencies in the United States. The data include information describing schools and school districts, including name, address, and phone number; descriptive information about students and staff, including demographics; and fiscal data, including revenues and current expenditures.

• Name of Organization: Bureau of the Census Amount: \$4,898,000

Period of Performance: 1/28/05-1/27/06

• Name of Organization: Bureau of the Census

Amount: \$5,386,000

Period of Performance: 1/30/06-1/29/07

Statewide Longitudinal Data Systems (SLDS) – The SLDS program awards competitive grants to states to aid them in the design and implementation of statewide longitudinal data systems. These systems

are intended to enhance the ability of states to efficiently and accurately manage, analyze, and use education data, including individual student records. The data systems developed with funds from these grants should help states, districts, schools, and teachers make data-driven decisions to improve student learning, as well as facilitate research to increase student achievement and close achievement gaps.

• Name of Organization: California Department

of Education

Amount: \$3,255,445

Period of Performance: 5/25/06-5/24/09

• Name of Organization: Ohio Department

of Education

Amount: \$5,670,100

Period of Performance: 12/1/05-11/30/08

• Name of Organization: Michigan Department

of Education

Amount: \$3,000,000

Period of Performance: 2/1/06-1/31/09

• Name of Organization: South Carolina

Department of Education

Amount: \$5,795,603

Period of Performance: 1/9/06-1/8/09

Name of Organization: Pennsylvania State

Department of Education

Amount: \$4,008,875

Period of Performance: 3/1/06-2/28/09

• Name of Organization: Maryland State

Department of Education

Amount: \$5,690,718

Period of Performance: 12/1/05-11/30/08

• Name of Organization: Tennessee Department

of Education

Amount: \$3,226,313

Period of Performance: 12/1/05-7/1/08

• Name of Organization: Minnesota Department

of Education

Amount: \$3,272,448

Period of Performance: 2/1/06-1/31/09

• Name of Organization: Kentucky Department

of Education

Amount: \$5,780,275

Period of Performance: 12/1/05-11/30/08

• Name of Organization: Alaska Department of

Education and Early Development

Amount: \$3,506,757

Period of Performance: 12/1/05-10/31/08

• Name of Organization: Arkansas Department

of Education

Amount: \$3,328,503

Period of Performance: 12/1/05-11/30/08

• Name of Organization: Wisconsin Department

of Public Instruction

Amount: \$3,081,000

Period of Performance: 2/1/06-1/31/09

• Name of Organization: Florida Department

of Education

Amount: \$1,577,602

Period of Performance: 12/1/05-11/30/08

• Name of Organization: Connecticut

Department of Education

Amount: \$1,500,714

Period of Performance: 12/1/05-11/30/08

Data Quality Standards – These contracts provide support to develop and maintain the NCES Online Data Handbooks that are used throughout the Department; conduct CCD data quality studies; allow personnel exchanges between state education agencies to enable states to learn how others have handled data management challenges; and support state data systems, allow state site visits, and provide technical support to states under the Performance Based Data Management Initiative.

• Name of Organization: Council of Chief State

School Officers

Amount: \$8,300,000

Period of Performance: 9/25/03-3/29/07

Name of Organization: Council of Chief State

School Officers

Amount: \$11,164,310

Period of Performance: 9/29/06-9/28/11

Education Longitudinal Study (ELS) – The Education Longitudinal Study of 2002 (ELS:2002) is a longitudinal survey that is monitoring the transitions of a national sample of young people as they progress from tenth grade and twelfth grade to schooling beyond high school and to the world of work. ELS:2002 obtains information not just from students and their school records, but also from students' parents, their teachers, their librarians and the administrators of their schools.

Name of Organization: Research Triangle

Institute (RTI)

Amount: \$28,500,000

Period of Performance: 3/22/00-4/13/09

National Cooperative Education Statistics System (NCESS) – The National Cooperative Education Statistics System was established under the Hawkins-Stafford Education Improvement Amendments of 1988. The system is meant to

organize cooperation with the states on issues of education data collection and dissemination. To this end, the National Forum on Education Statistics was established in 1989 to create a voluntary, democratic, participatory, federal-state group to identify education data needs at the national, state, and local levels.

• Name of Organization: Multiple awards—all 50 states, D.C., and Puerto Rico.

Amount: \$23,866,851

Period of Performance: 8/28/2003 and

9/29/2003-2/1/07

Private School Survey (PSS) – The purposes of this data collection activity are (a) to generate biennial data on the total number of private schools, teachers, and students; and (b) to build an accurate and complete list of private schools to serve as a sampling frame for NCES surveys of private schools. The PSS is conducted every two years with the first collection during the 1989-90 school year and again in 1991-92, 1993-94, 1995-96, 1997-98, 1999-2000, 2001-02, 2003-04, and then every two years thereafter.

• Name of Organization: Bureau of the Census

Amount: \$432,239

Period of Performance: 1/1/05-6/30/05

• Name of Organization: Bureau of the Census

Amount: \$2,102,987

Period of Performance: 7/1/05-6/30/06

Name of Organization: Bureau of the Census

Amount: \$1,157,000

Period of Performance: 7/1/06-6/30/07

Schools and Staffing Survey (SASS) – SASS is the largest survey of the characteristics and conditions of the nation's elementary and secondary schools. SASS collects information on public, charter,

private, and Bureau of Indian Affairs schools, including school districts, principals, teachers, and school libraries.

• Name of Organization: Child Trends

Amount: \$300,000

Period of Performance: 2/22/05-3/21/06

• Name of Organization: Bureau of the Census

Amount: \$1,137,709

Period of Performance: 1/1/05-6/30/05

• Name of Organization: Bureau of the Census

Amount: \$3,397,010

Period of Performance: 7/1/05-6/30/06

• Name of Organization: Bureau of the Censusincludes \$99,950 contribution from the Office of Indian Education

Amount: \$5,710,050

Period of Performance: 7/1/06-6/30/07

• Name of Organization: Bureau of the Census

Amount: \$339,900

Period of Performance: 9/1/06-6/30/07

School District Demographics System (SDDS) – The SDDS Web site enables users to directly access school district geographic and demographic data, and provides information about school district demographic concepts, uses, and applications to facilitate effective use of these information resources.

• Name of Organization: Synectics for Management Decisions, Inc.

Amount: \$3,355,000

Period of Performance: 4/4/03-8/30/07

• Name of Organization: Bureau of the Census

Amount: \$450,000

Period of Performance: 6/1/05-5/31/06

• Name of Organization: Bureau of the Census

Amount: \$608,000

Period of Performance: 6/1/06-5/31/07

School Survey on Crime and Safety (SSOCS) – The School Survey on Crime and Safety (SSOCS) is the National Center for Education Statistics' sample survey of the nation's public schools designed to provide estimates of school crime, discipline, disorder, programs and policies. SSOCS is administered to public elementary, middle, secondary, and combined school principals during the spring of a school year.

Name of Organization: Abt Associates

Amount: \$670,730

Period of Performance: 9/25/02-9/28/06

• Name of Organization: Bureau of the Census–funding from the Office of Safe and Drug Free Schools

Amount: \$116,730

Period of Performance: 9/28/05-6/30/06

 Name of Organization: Bureau of the Census

– funding from the Office of Safe and Drug Free Schools

Amount: \$632,274

Period of Performance: 9/28/05-6/30/06

• Name of Organization: Bureau of the Census–funding from the Office of Safe and Drug Free Schools

Amount: \$266,000

Period of Performance: 7/1/06-6/30/07

• Name of Organization: Bureau of the Census–funding from the Office of Safe and Drug Free Schools

Amount: \$733,000

Period of Performance: 7/1/06-6/30/07

Elementary/Secondary & Library Studies Division General Programs

• Name of Organization: Westat, Inc.

Description: Elementary/Secondary Education Cooperative System Support-Task Force Meeting/Administrative Support — This contract provides support for several major areas of work including Task Force/Working Group meetings, training and Personnel Exchanges, establishment and maintenance of group listservs, and pre-planning for the Management Information Systems Conference.

Amount: \$15,100,000

Period of Performance: 9/27/02-9/30/07

• Name of Organization: KForce, Inc. (formerly Pinkerton Computer Consultants, Inc.)

Description: This contract provides website, web tool, and technical support to NCES. This includes on-line collection of library data, enhancement and maintenance of Web sites and peer comparison tools, and development of on-line public access tools. This contract exercised the first option period of the GSA purchase order which provides NCES with the development and maintenance of Web sites and related tools, and provides technical program support. It may be extended for up to five years.

Amount: \$14,000,000

Period of Performance: 5/7/04-4/27/09

Postsecondary Studies Division

Integrated Postsecondary Education Data System (IPEDS) – IPEDS, the core postsecondary education data collection program for NCES, is a single, comprehensive system designed to encompass all institutions and educational organizations whose primary purpose is to provide postsecondary education. The IPEDS is built around a series of interrelated surveys to collect institution-level data in such areas as enrollments, program completions, faculty, staff, and finances.

• Name of Organization: Research Triangle Institute (RTI)

Amount: \$4,821,441

Period of Performance: 7/3/00-11/30/04

• Name of Organization: Decision Information Resources, Inc.

Amount: \$769,902

Period of Performance: 9/26/03-6/1/06

• Name of Organization: Decision Information Resources, Inc.

Amount: \$475,533

Period of Performance: 5/15/04-8/11/07

• Name of Organization: Research Triangle Institute (RTI)

Amount: \$23,940,340

Period of Performance: 6/3/03-5/31/08

• Name of Organization: Macro International, Inc.

Amount: \$400,000

Period of Performance: 7/11/05-7/10/06

• Name of Organization: HigherEd.org, Inc.

Amount: \$384,642

Period of Performance: 9/29/04-7/1/05

• Name of Organization: HigherEd.org, Inc.

Amount: \$500,000

Period of Performance: 6/1/05-8/30/06

• Name of Organization: HigherEd.org, Inc.

Amount: \$500,000

Period of Performance: 8/4/05-5/3/06

National Postsecondary Student Aid Study (NPSAS) – NPSAS is a comprehensive nationwide

study designed to determine how students and their families pay for postsecondary education, and to describe some demographic and other characteristics of those enrolled. The study is based on a nationally representative sample of students in postsecondary education institutions, including undergraduate, graduate, and first-professional students. Students attending all types and levels of institutions are represented, including public and private not-forprofit and for-profit institutions, and less-than-twoyear institutions, community colleges, and fouryear colleges and universities. The NPSAS studies are designed to address policy questions resulting from the rapid growth of financial aid programs and the succession of changes in financial aid program policies since 1986. The first NPSAS study was conducted during the 1986-87 school year; subsequent studies have been carried out during the 1989-90, 1992-93, 1995-96, and 1999-2000 school years (i.e., NPSAS:90, NPSAS:93, NPSAS:96, and NPSAS:2000).

• Name of Organization: Research Triangle Institute (RTI)

Amount: \$77,997,899

Period of Performance: 9/9/05-9/8/10

Baccalaureate and Beyond Longitudinal Study (B&B) – B&B provides information concerning education and work experiences after completion of bachelor's degrees. B&B provides both cross-sectional information one year after bachelor's degree completion, comparable to the Recent College Graduate (RCG) Survey, and longitudinal data concerning entry into and progress through graduate-level education and the workforce. A special emphasis of B&B is on those entering teaching.

• Name of Organization: Research Triangle Institute (RTI)

Amount: \$6,553,578

Period of Performance: 6/29/01-6/30/05

National Study of Postsecondary Faculty (NSOPF) – NSOPF was conducted in response to a continuing need for data on faculty and instructors—persons who directly affect the quality of education in postsecondary institutions. Faculty are the pivotal resource around which the process and outcomes of postsecondary education revolve. They often determine curriculum content, student performance standards, and the quality of students' preparation for careers. Faculty members perform research and development work upon which this nation's technological and economic advancement depend. Through their public service activities, they make valuable contributions to society. For these reasons, it is essential to understand who they are; what they do; and whether, how, and why they are changing. This study was designed to provide data about faculty to postsecondary education researchers, planners, and policymakers. NSOPF is the most comprehensive study of faculty in postsecondary educational institutions ever undertaken.

• Name of Organization: Research Triangle Institute (RTI)

Amount: \$41,400,000

Period of Performance: 5/2/02-5/2/07

Postsecondary Education Descriptive Analysis Reports (PEDAR) – PEDAR provides a series of analysis reports that focus on postsecondary education policy issues, and an information system that organizes postsecondary data sets and analyses. The crosscutting work done in this program takes advantage of multiple education data sources, especially data from recently completed surveys.

• Name of Organization: MPR Associates, Inc.

Amount: \$17,164,076

Period of Performance: 9/30/02-9/30/07

Postsecondary Studies Division General Programs

 Name of Organization: State Higher Education Executive Officers (SHEEO)

Description: State Postsecondary Education
Coordination Network – This SHEEO/NCES
Communication Network provides timely
dissemination of NCES projects to state policy
makers. The SHEEO are the primary policy
officials for public institutions (and in some cases all
institutions) in most states. Their input and interest
in NCES data collections is critical to the provision
of policy relevant data. Incremental funding will
continue these activities and provide the services to
SHEEO and NCES that are necessary to collect and
disseminate policy relevant data.

Amount: \$3,289,086

Period of Performance: 9/28/01-9/27/07

• Name of Organization: Westat, Inc.

Description: Postsecondary analysis and technical development—this is a delivery order contract that conducts special analyses of NCES and other postsecondary data. It also provides support to users on NCES data, and provides the capability of conducting feasibility studies for new data collection, assessing the quality of data being collected, carrying out small scale data collection activities, and providing technical support for methodological studies on an as-needed basis.

Amount: \$806,831

Period of Performance: 9/30/04-9/29/09

 Name of Organization: National Science Foundation

Description: This interagency agreement helps support and gives NCES access to data from the Survey of Earned Doctorates (SED). The SED began in 1957-58 to collect data continuously on the number and characteristics of individuals receiving research doctoral degrees from all accredited U.S. institutions. The results of this annual survey are used to assess characteristics and trends in doctorate education and degrees. This information is vital

for educational and labor force planners within the federal government and in academia.

Amount: \$675,000

Period of Performance: 6/2/05-6/1/06

 Name of Organization: National Science Foundation

Description: For SED transfer of funds in FY 2006

Amount: \$675,000

Period of Performance: 7/1/06-6/30/07

Office of the Deputy Commissioner

Statistical Standards Program (SSP) – The SSP provides methodological and statistical support to the Center, as well as to federal and nonfederal organizations that engage in statistical work in support of the mission of NCES. This program develops standards for procedures to ensure the quality of statistical surveys, analyses, and products; consults and advises on the implementation of standards for all Center projects; coordinates the NCES review process for publications and other Center products; leads the NCES Task Force on Quality Systems; and coordinates the revision of the NCES Statistical Standards. The program also monitors and administers confidentiality procedures and related restricted use data licenses for Institute of Education Sciences (IES) data products. In addition to this set of ongoing activities, the SSP consults and advises on emerging statistical issues, and initiates and monitors or participates in long-term statistical and methodological research projects.

• Name of Organization: Harbor Lane Associates, Inc.

Amount: \$1,016,237

Period of Performance: 4/17/03-4/16/08

Office of the Commissioner General Programs

• Name of Organization: Strategic Research Group

Description: NCES Customer Satisfaction Survey – To conduct the 2006 survey with an option to conduct the 2008 survey.

Amount: \$500,000

Period of Performance: 3/17/05-1/16/07

Name of Organization: National

Science Foundation

Description: American Educational Research Association (AERA) Grants Program – Jointly funded by the National Science Foundation and NCES, this training and research program is administered by the AERA. The program has four major elements: a research grants program, a dissertation grants program, a fellows program, and a training institute. The program is intended to enhance the capability of the U.S. research community to use large-scale data sets, specifically those of the NSF and NCES, to conduct studies that are relevant to educational policy and practice, and to strengthen communications between the educational research community and government staff.

Amount: \$450,000

Period of Performance: 6/1/05-5/31/06

 Name of Organization: National Science Foundation

Description: AERA Grants Program- see National Science Foundation (in this section above).

Amount: \$450,000

Period of Performance: 6/1/06-5/31/07

• Name of Organization: Bureau of the Census

Description: To help support the Joint Program in Survey Methodology (JPSM), the nation's oldest and largest program offering graduate training in the principles and practices of survey research. Founded in 1993, it is sponsored by the Federal Interagency Consortium on Statistical Policy and located at the University of Maryland. To date, it

has 107 graduates working in government agencies, academic settings, and private survey research firms. Its award-winning faculty is drawn from the University of Maryland, the University of Michigan, Westat and other organizations.

Amount: \$110,000

Period of Performance: 7/15/05-7/14/06

• Name of Organization: Bureau of the Census **Description:** For JPSM- see Bureau of the Census (in this section above).

Amount: \$115,000

Period of Performance: 4/19/06-4/18/07

• Name of Organization: SAIC (EDNET task)

Description: To provide technical and web development support for the Web site and daily operations of the Network hardware facility. As part of the operation and in compliance with the security plan, SAIC's data must be backed up and stored at an offsite backup storage facility.

Amount: \$868,186

Period of Performance: 4/17/03-9/30/05

• Name of Organization: Computer

Science Corporation

Description: EDNET task- see SAIC (EDNET

task) (in this section above).

Amount: \$512,294

Period of Performance: 7/30/06-7/20/07

 Name of Organization: Bureau of the Census–FedStats

Description: FedStats, which has been available to the public since 1997, provides access to the full range of official statistical information produced by the federal government without having to know in advance which federal agency produces which particular statistic. With convenient searching and linking capabilities to more than 100 agencies that provide data and trend information on such topics as economic and population trends, crime, education, health care, aviation safety, energy use, farm production and more, FedStats is a single

location for access to the full breadth of federal statistical information.

Amount: \$100,000

Period of Performance: 8/1/05-7/30/06 and 8/1/06-7/31/07

 Name of Organization: National Science Foundation

Description: Jointly funded by contributions from major federal statistical agencies, The National Academies convenes the Committee on National Statistics (CNSTAT), a committee of prominent researchers from universities and private research organizations, to study statistical topics to improve the effectiveness of the federal statistical system. CNSTAT monitors the statistical policy and coordinating activities of the federal government, reviews the statistical programs of federal agencies and suggests improvements, reviews data-handling and privacy and confidentiality policies and provides recommendations for best practices, studies data gaps and recommends additions as necessary, and reviews extant methodologies and suggests improved statistical methods.

Amount: \$150,000

Period of Performance: 8/1/05-7/30/06 and 8/1/06-7/31/07

• Name of Organization: American Institutes for Research (AIR)

Description: Education Statistics Services Institute (ESSI) – This contract conducts a wide range of activities in support of NCES's efforts to carry out a program of over 100 surveys, maintain a Web site used by three-quarters of a million customers monthly, and assist states and postsecondary institutions in building a solid infrastructure for accurate and timely statistics. The ESSI was created in 1995 to support NCES's analytic, research and development activities. Recompeted in 2005.

Amount: \$75,000,000

Period of Performance: 9/30/05-12/31/09

 Name of Organization: American Institutes for Research (AIR) **Description:** ESSI Statistical Activities contract—Recompeted in 2005, see American Institutes for

Research (AIR) (in this section above).

Amount: \$200,000,000

Period of Performance: 9/5/95-12/31/05

• Name of Organization: Synergy Enterprises, Inc.

Description: NCES Logistics Contract – This contract provides logistics support and services to facilitate NCES analysis, publications, and technical development activities.

Amount: \$15,000,000

Period of Performance: 9/30/05-1/29/07

National Center for Education Evaluation and Regional Assistance (NCEE)

NCEE carries out programs of evaluating federal programs, synthesizing and disseminating information from evaluation and research, and providing technical assistance primarily through contracts.

Evaluations

• Name of Organization: Mathematica Policy Research, Inc.

Description: Evaluation of the Effectiveness of Educational Technology Intervention — This mandated evaluation assesses the impact of using selected technologies that are intended to improve student academic achievement in reading or in mathematics.

Amount: \$14,553,920

Period of Performance: 9/1/03-9/1/07

• Name of Organization: Mathematica Policy Research, Inc.

Description: Evaluation of the Impact of Charter School Strategies – This study will assess the impact of application to and attendance at middle charter schools on academic achievement and parent and student satisfaction. The study will also examine the relationship between impacts and key policy characteristics such as school autonomy, funding, and accountability.

Amount: \$5,944,000

Period of Performance: 9/28/03-9/30/08

 Name of Organization: Mathematica Policy Research, Inc.

Description: *Impact Evaluation of Teacher Preparation Models* – This study will assess the effects of different types and amounts of teacher training on student achievement, taking advantage of the existing variation in teacher training across

different routes to certification, both alternative and traditional.

Amount: \$9,449,733

Period of Performance: 9/30/03-9/29/07

 Name of Organization: Mathematica Policy Research, Inc.

Description: Evaluation of Reading Comprehension Programs – This study will assess the effectiveness of several promising reading comprehension programs on student achievement.

Amount: \$17,380,017

Period of Performance: 9/30/04-9/29/08

• Name of Organization: Research Triangle Institute (RTI)

Description: *Impact Evaluation of a School-based Violence Prevention Program* – This study will evaluate the effectiveness of a school-based violence prevention program for middle school students.

Amount: \$9,988,200

Period of Performance: 8/31/04-2/28/10

Name of Organization: MDRC

Description: Development, Implementation, and Impact Evaluation of Academic Instruction for After-School Programs – This project will test the efficacy of two instructional programs in math and reading implemented in after-school programs.

Amount: \$15,894,071

Period of Performance: 10/1/03-9/30/07

• Name of Organization: Abt Associates

Description: *Reading First Impact Study* – The study is assessing the impact of the Reading First program on student reading achievement in 17 districts and one state.

Amount: \$30,713,615

Period of Performance: 9/29/03-9/28/08

• Name of Organization: Westat, Inc.

Description: Even Start Classroom Literacy Interventions and Outcomes Study (CLIO) is

testing the relative effectiveness of early childhood education and parenting education interventions with preschool children and their parents in a sample of Even Start projects.

Amount: \$33,072,060

Period of Performance: 9/28/01-3/31/07

Name of Organization: Abt Associates

Description: *Impact Evaluation of the Student Mentoring Program* – The evaluation will examine the impact of student mentoring programs funded by OSDFS on academic achievement, delinquent behavior, interpersonal relationships, and social and personal responsibility.

Amount: \$5,600,000

Period of Performance: 3/24/05-9/23/08

• Name of Organization: Abt Associates

Description: *Technical Assistance to Local Impact Evaluations of Striving Readers Projects* – To provide technical assistance to the evaluators of the grants awarded under the Striving Readers Program who are conducting random assignment evaluations.

Amount: \$1,214,186

Period of Performance: 8/4/06-8/3/11

• Name of Organization: Abt Associates

Description: *Impact Evaluation of Upward Bound's Increased Focus on Higher-Risk Students* — This randomized control trial will assess the impact of the Upward Bound program's policy initiative to target more funds to higher-risk students.

Amount: \$4,999,027

Period of Performance: 9/15/06-9/30/11

• Name of Organization: American Institutes for Research (AIR)

Description: *Impact Evaluation Of Math Professional Development* – This evaluation will develop and test promising math professional development models that focus on content knowledge and pedagogical strategies in grades 4 and 7.

Amount: \$16,634,867

Period of Performance: 8/30/05-8/30/10

• Name of Organization: American Institutes for Research (AIR)

Description: Evaluation of Conversion Magnet Schools – This study will assess the feasibility of evaluating the relationship between magnet school conversion, minority group isolation, and student achievement at the elementary school level. If feasible to conduct the evaluation, a quasi-experimental design will be used to compare approximately 50 magnet schools and 100 comparison schools for at least three years before and after schools' conversion to magnet status.

Amount: \$495,279

Period of Performance: 9/18/06-2/28/08

• Name of Organization: Berkeley Policy Associates

Description: This task order is assessing the feasibility of designing a rigorous, random assignment evaluation to test the "value added" method of measuring teacher performance. A technical working group offered guidance on issues such as random assignment procedures, sample design, data collection, and analysis methods.

Amount: \$332,458

Period of Performance: 9/16/05-12/29/06

• Name of Organization: Branch Associates Inc.

Description: Evaluation of the Comprehensive Technical Assistance Centers – This evaluation will evaluate how the Centers have expanded States' capacity to address the educational needs of LEAs and schools.

Amount: \$6,630,084

Period of Performance: 8/15/06-8/14/10

Name of Organization: SRI International

Description: *National Study on Alternate Assessments* – This study is addressing three sets of questions that are crucial to understanding the development and use of alternate assessments to ensure that schools are accountable for the performance of students with disabilities. In particular, the study will evaluate the degree to which states and schools provide alternate assessments based on grade-level, modified, and alternate achievement standards as a means

for including students with disabilities in state accountability systems and improving their educational outcomes.

Amount: \$4,410,960

Period of Performance: 9/27/05-8/30/09

• Name of Organization: RMC Research

Description: Evaluation of the Impact of Mandatory-Random Student Drug Testing – To evaluate the impact of mandatory random drug testing programs on student drug use in high schools.

Amount: \$4,174,863

Period of Performance: 9/20/06-9/19/10

• Name of Organization: Westat, Inc.

Description: Design of the National Assessment of Progress Under the Individuals with Disabilities Improvement Act (IDEA 2004) – This project will design implementation and impact studies for the evaluation mandated by Congress under Section 664(b) of IDEA.

Amount: \$597,399

Period of Performance: 9/29/06-7/28/07

• Name of Organization: Westat, Inc.

Description: Design of the Evaluation of the IDEA Personnel Preparation Program (Part D) — This task will prepare design options for an independent evaluation of the Personnel Preparation Program. The contractor shall review and summarize the relevant research and program materials, seek the advice of national experts, and prepare evaluation designs to address key study questions.

Amount: \$324,474

Period of Performance: 8/24/06-4/20/07

• Name of Organization: Westat, Inc.

Description: *Followup to the Even Start CLIO Study* – This study will assess the longerterm impacts of the Even Start CLIO Study interventions as the children complete kindergarten and first grade.

Amount: \$3,249,893

Period of Performance: 9/29/06-9/28/09

• Name of Organization: Westat, Inc.

Description: *Data Quality Initiative* – To provide technical assistance to program offices and their grantees in the collection and analysis of program outcome and impact data.

Amount: \$1,980,000

Period of Performance: 9/20/06-9/19/09

 Name of Organization: Optimal Solutions Group, LLC

Description: Study of Teacher Preparation in Early Reading Instruction – The study will collect information in spring 2007 from a sample of 2,500 pre-service teachers in a nationally representative sample of 100 institutions. It will include a preservice teacher survey regarding the content of their programs as well as an assessment of pre-service teacher knowledge about the essential components of reading instruction.

Amount: \$4,999,643

Period of Performance: 8/25/05-2/25/08

Name of Organization: MDRC

Description: An Evaluation of the Impact of Supplemental Literacy Interventions in Freshman Academies – This study will assess the impact of two supplemental literacy programs for striving readers in ninth grade smaller learning communities.

Amount: \$6,496,953

Period of Performance: 9/30/04-9/30/09

• Name of Organization: Mathematica Policy Research, Inc.

Description: *Impact Evaluation of Teacher Induction Programs* – Evaluation of the impact of high intensity teacher induction on teacher retention, teacher practices, and student test scores.

Amount: \$16,793,824

Period of Performance: 9/30/04-9/29/09

• Name of Organization: Mathematica Policy Research, Inc.

Description: Data Analyses Addressing Teacher Compensation and Teacher Quality – This study will assess the feasibility of using secondary data analyses to provide information about the effectiveness of alternative teacher compensation strategies as well as develop the design of a rigorous evaluation of an alternative teacher compensation strategy.

Amount: \$322,146

Period of Performance: 9/14/05-2/28/07

• Name of Organization: Mathematica Policy Research, Inc.

Description: *Evaluation of Math Curricula* – This study will evaluate the impact of different commercially available math curricula on student achievement in early elementary school grades.

Amount: \$20,009,692

Period of Performance: 9/30/05-9/30/09

• Name of Organization: Mathematica Policy Research, Inc.

Description: Program Selection and Design for an Evaluation of the Impact of Academically Focused Career and Technical Education — This study will identify and support the refinement of up to three academically focused vocational programs and to develop the technical specifications to evaluate these programs.

Amount: \$596,941

Period of Performance: 9/12/06-9/30/07

• Name of Organization: Westat, Inc.

Description: Evaluation of the Impact of the DC Choice Program – This is a congressionally mandated evaluation of a federally funded private school voucher program for low-income residents of Washington, D.C. The evaluation will assess, using a randomized control trial evaluation design, the impact of the program on academic achievement, school safety, student and parent satisfaction, and other outcomes.

Amount: \$3,349,782

Period of Performance: 7/21/04-7/20/09

• Name of Organization: Westat, Inc.

Description: An Evaluation of States' Monitoring

and Improvement Practices Under the Individuals with Disabilities Education Act - This study is evaluating the effectiveness of state monitoring on key outcomes of Parts B and C of IDEA. As state monitoring of IDEA is an evaluation activity, this study is a meta-evaluation of state monitoring evaluations; that is, it is an evaluation of states' own evaluations. This study has three objectives: (a) to describe the nature and extent of the various monitoring activities implemented by states for Parts B and C of IDEA; (b) to assess the effectiveness of states' monitoring efforts and to identify the reasons for good and poor outcomes for children with disabilities; and (c) to identify and develop recommendations for potential best practices in monitoring that can be shared with states.

Amount: \$4,078,275

Period of Performance: 9/30/04-9/29/09

 Name of Organization: National Academies of Science, National Research Council

Description: A Study of Teacher Preparation
Programs In The United States – The National
Academy of Science has formed an independent
committee of experts to synthesize data and
research on: (1) the academic preparation and
educational characteristics of candidates in preservice, graduate, and alternative certification
programs; (2) the specific content and experiences
that are provided to candidates for degrees and
alternative certification in education; (3) the
consistency of the required coursework and
experiences in reading and mathematics across
teacher preparation programs; and (4) the degree
to which the content and experiences are based on
converging scientific evidence.

Amount: \$1,500,000

Period of Performance: 4/30/05-12/31/07

What Works Clearinghouse

• Name of Organization: American Institutes for Research (AIR)

Principal Investigator: Rebecca Herman

• Name of Organization: Campbell Collaboration Principal Investigator: Robert Boruch

Description: To provide educators, policymakers, researchers, and the public with reviews of the best scientific evidence on the effectiveness of specific interventions (programs, products, practices, and policies) to improve important student outcomes. The WWC gathers published and unpublished studies, screens them for relevance to the topic and validity of the outcome measures, assesses the causal validity of randomized controlled trials and quasi-experimental design studies, reviews the evidence of effectiveness of the interventions, and releases its reports to the public through the WWC Web site.

Amount: \$23,805,419

Period of Performance: 8/1/02-7/31/07

Education Resources Information Center (ERIC)

• Name of Organization: CSC/Professional Services Group

Description: *Education Resources Information Center (ERIC)* – The mission of the new ERIC is to provide a comprehensive, easy-to-use, searchable, Internet-based bibliographic and full-text database of education research and information for educators, researchers, and the general public.

Amount: \$34,613,434

Period of Performance: 3/12/04-3/11/09

 Name of Organization: CSC/Professional Services Group

Description: *Education Resources Information Center (ERIC)* – Increase for the digitization of about 340,000 full-text microfiche documents to digital images.

Amount: \$4,257,816

Period of Performance: 9/29/06-3/11/09

• Name of Organization: Information International Associates, Inc.

Description: Education Resources Information Center

(ERIC) – ERIC Quality Assurance monitors and measures the performance of the online ERIC system.

Amount: \$600,658

Period of Performance: 9/24/04-9/30/07

National Library of Education

• Name of Organization: Scientific and Commercial Systems Corporation

Description: *Library Technical and Reference Services* – provides cataloging, government documents and collection management and reference services.

Amount: \$2,062,525

Period of Performance: 9/30/02-9/29/07

Regional Educational Laboratories

Ten Regional Educational Laboratories were funded by the Institute of Education Sciences to bridge research, policy, and practice so as to serve state and local education agencies, communities, and schools. Under the guidance and direction of their governing boards, the laboratories conduct applied research and development, disseminate knowledge about best practice, and provide technical assistance. The laboratories also assess the educational needs of their regions, provide opportunities for state and regional gatherings on vital topics, and work jointly as a laboratory network.

• Name of Organization: Mid-Continent Research for Education and Learning

Description: *Mid-Continent Research for Education and Learning* – States Served: Colorado, Kansas, Missouri, Nebraska, North Dakota, South Dakota, and Wyoming

Amount: \$27,361,014

Period of Performance: 12/13/00-12/12/05

• Name of Organization: Laboratory for Student Success, Temple University

Description: Laboratory for Student Success – States Served: Delaware, Maryland, New Jersey, Pennsylvania, and Washington, D.C.

Amount: \$34,046,948

Period of Performance: 12/13/00-12/12/05

• Name of Organization: Southwest Educational Development Laboratory

Description: Southwest Educational Development Laboratory – States Served: Arkansas, Louisiana, New Mexico, Oklahoma, and Texas

Amount: \$35,999,856

Period of Performance: 12/13/00-12/12/05

Name of Organization: Northeast and Islands
 Regional Educational Laboratory at Brown University

Description: Northeast and Islands Regional Educational Laboratory at Brown University – States Served: Connecticut, Maine, Massachusetts, New Hampshire, New York, Rhode Island, Vermont, Puerto Rico, and Virgin Islands

Amount: \$39,466,538

Period of Performance: 12/15/00-12/14/05

• Name of Organization: Learning Point Associates

Description: North Central Regional Educational Laboratory – States Served: Illinois, Indiana, Iowa, Michigan, Minnesota, Ohio, and Wisconsin

Amount: \$43,256,912

Period of Performance: 12/13/00-12/12/05

Name of Organization: WestEd

Description: Western Regional Educational Laboratory at WestEd – States Served: Arizona, California, Nevada, and Utah

Amount: \$35,639,084

Period of Performance: 12/13/00-12/12/05

• Name of Organization: Northwest Regional Educational Laboratory

Description: Northwest Regional Educational Laboratory – States Served: Alaska, Idaho, Montana, Oregon, and Washington

Amount: \$33,685,208

Period of Performance: 12/11/00-12/10/05

• Name of Organization: Pacific Resources for Education and Learning

Description: Pacific Resources for Education and Learning – States Served: American Samoa, the Commonwealth of the Northern Mariana Islands, the Federated States of Micronesia (Chuuk, Kosrae, Pohnpei, and Yap), Guam, Hawaii, the Republic of the Marshall Islands, and the Republic of Palau

Amount: \$21,154,772

Period of Performance: 12/14/00-12/13/05

 Name of Organization: SERVE, University of North Carolina-Greensboro

Description: Regional Educational Laboratory at SERVE – States Served: Alabama, Florida, Georgia, Mississippi, North Carolina, and South Carolina

Amount: \$37,185,248

Period of Performance: 12/15/00-12/14/05

• Name of Organization: AEL, Inc.

Description: The Regional Educational Laboratory at AEL, Inc. – States Served: Kentucky, Tennessee, Virginia, and West Virginia

Amount: \$27,135,184

Period of Performance: 12/14/00-12/14/05

• Name of Organization: WestEd

Description: Regional Educational Laboratory-West – States Served: Arizona, California, Nevada, and Utah

Amount: \$7,456,478

Period of Performance: 1/18/06-1/17/11

 Name of Organization: Northwest Regional Educational Laboratory

Description: Regional Educational Laboratory-Northwest – States Served: Alaska, Idaho, Montana, Oregon, and Washington **Amount:** \$4,961,888

Period of Performance: 2/1/06-1/31/11

• Name of Organization: Edvance Research

Description: Regional Educational Laboratory-Southwest – States Served: Arkansas, Louisiana,

New Mexico, Oklahoma, and Texas

Amount: \$6,987,542

Period of Performance: 3/15/06-3/14/11

• Name of Organization: Learning Point Associates

Description: Regional Educational Laboratory-Midwest – States Served: Illinois, Indiana, Iowa, Michigan, Minnesota, Ohio, and Wisconsin

Amount: \$7,288,340

Period of Performance: 3/9/06-3/8/11

• Name of Organization: The CNA Corporation

Description: Regional Educational Laboratory-Appalachia – States Served: Kentucky, Tennessee,

Virginia, and West Virginia

Amount: \$5,217,206

Period of Performance: 2/6/06-3/15/11

• Name of Organization: Mid-Continent Research for Education and Learning

Description: Regional Educational Laboratory-Central – States Served: Colorado, Kansas, Missouri, Nebraska, North Dakota, South Dakota, and Wyoming

Amount: \$5,144,980

Period of Performance: 1/20/06-1/20/11

• Name of Organization: Pacific Resources for Education and Learning

Description: Regional Educational Laboratory-Pacific – States Served: American Samoa, the Commonwealth of the Northern Mariana Islands, the Federated States of Micronesia (Chuuk, Kosrae, Pohnpei, and Yap), Guam, Hawaii, the Republic of the Marshall Islands, and the Republic of Palau

Amount: \$4,368,660

Period of Performance: 3/16/06-2/28/11

Name of Organization: EDC

Description: Regional Educational Laboratory-Northeast & Islands – States Served: Connecticut, Maine, Massachusetts, New Hampshire, New York, Rhode Island, Vermont, Puerto Rico, and Virgin Islands

Amount: \$7,406,380

Period of Performance: 3/15/06-3/14/11

 Name of Organization: SERVE, University of North Carolina-Greensboro

Description: Regional Educational Laboratory-Southeast – States Served: Alabama, Florida, Georgia, Mississippi, North Carolina, and South Carolina

Amount: \$6,954,518

Period of Performance: 2/24/06-3/15/11

• Name of Organization: Pennsylvania State University

Description: Regional Educational Laboratory-Mid-Atlantic – States Served: Delaware, Maryland, New Jersey, Pennsylvania, and Washington, D.C.

Amount: \$6,222,871

Period of Performance: 3/23/06-3/15/11

Other

• Name of Organization: Mathematica Policy Research, Inc.

Description: Analytic and Technical Support contract – Technical support activities for (1) preparation of papers and analyses in areas such as cutting-edge evaluation methodologies; statistical analyses of education issues of national importance, expert reviews of major education studies and reports, and design papers on education research and evaluation; and, (2) technical assistance that promotes the conduct of scientifically rigorous studies and the use of information from those studies.

Amount: \$3,495,741

Period of Performance: 9/30/06-9/29/07

Interagency Agreements

• Name of Organization: U.S. Library of Congress, Fedlink Office

Description: Interagency agreement to provide IES's National Library of Education with access to an international bibliographic database for catablogging and interlibrary loan services, procurement contracts for library resources and services, and staff training in 2005.

Amount: \$275,086

Period of Performance: 10/1/04-9/30/05

• Name of Organization: U.S. Library of Congress, Fedlink Office

Description: Interagency agreement to provide IES's National Library of Education with access to an international bibliographic database for catablogging and interlibrary loan services, procurement contracts for library resources and services, and staff training in 2006.

Amount: \$146,540

Period of Performance: 10/1/05-9/30/06

Grants

Field-Initiated Evaluations of Education Innovations

Name of Institution: RAND Corporation

Principal Investigator: John Pane

Description: Experimental Field Study of Cognitive Tutor Geometry Curriculum – This study will help to address a critical need for research-based mathematics curricula at the high school level. Cognitive Tutor Geometry, a curriculum that has shown promise in quasi-experimental studies, will be evaluated in a randomized controlled trial.

Amount: \$1,255,961

Period of Performance: 6/1/05-5/31/08

 Name of Institution: New York University School of Medicine

Principal Investigator: Laurie Brotman

Description: Promoting School Success in Children Attending Pre-K Programs in Poor, Urban Schools — This five-year study evaluates a universal, preventive school- and family-based program for pre-kindergarten children from schools in poor, urban communities. The intervention aims to prevent conduct problems and improve academic achievement by promoting effective parenting and teaching strategies, parent-school involvement, and child social, emotional, and behavioral competence during the preschool period.

Amount: \$3,849,787

Period of Performance: 6/1/05-5/31/10

Name of Institution: University of Nebraska
 Principal Investigator: Susan Sheridan

Description: Evaluation of the Efficacy of CBC for Addressing Disruptive Behaviors of Children At-Risk for Academic Failure – This study involves an experimental investigation of the efficacy of a structured, family-school intervention approach, known as Conjoint Behavioral Consultation (CBC), for addressing disruptive and challenging behaviors of students at risk of academic failure.

Amount: \$1,368,067

Period of Performance: 6/1/05-5/31/08

Name of Institution: Johns Hopkins University
 Principal Investigator: Robert Balfanz

Description: Evaluation of the Computer and Team Assisted Mathematical Acceleration (CATAMA) Lab for Urban, High-Poverty, High-Minority Middle Schools – The goal of this project is to evaluate a practical approach for improving the math concepts and skills of students with math deficits at urban middle schools servicing high-poverty, high-minority student populations.

Amount: \$1,148,885

Period of Performance: 7/1/05-6/30/08

Name of Institution: Oregon Research Institute
 Principal Investigator: Barbara Gunn

Description: Evaluating the Efficacy of Read Well Kindergarten – The goal of the study is to experimentally evaluate the efficacy of a beginning reading program, Read Well Kindergarten.

Amount: \$1,403,531

Period of Performance: 6/1/05-5/31/08

• Name of Institution: University of Virginia Principal Investigator: Laura Justice

Description: Efficacy of Conversational Responsiveness Preschool Language Intervention — This is a rigorous randomized clinical trial to test an innovative approach to improving instructional quality in preschoool classrooms to improve early language, literacy and social skills.

Amount: \$1,372,429

Period of Performance: 6/1/05-5/31/08

• Name of Institution: University of Maryland Principal Investigator: Denise Gottfredson

Description: Effects of Enhanced After-School Programs on Educational Outcomes: A Randomized Trial — This study will provide evidence about whether an enhanced after-school program can improve middle school students' academic performance.

Amount: \$1,499,943

Period of Performance: 6/1/05-5/31/08

• Name of Institution: University of Maryland

Principal Investigator: Sylvia Rosenfeld

Description: An Experimental Study of the Effectiveness of Instructional Consultation Teams – The experiment is designed to learn whether instructional consultation teams improve elementary school students' achievement in reading and math, reduce problem behavior, reduce the assignment of students to special education, and reduce retention in grade.

Amount: \$1,869,878

Period of Performance: 6/1/05-5/31/09

• Name of Institution: Berkeley Policy Associates

Principal Investigator: Tiffani Chin

Description: Evaluation of the SOURCE (Student Outreach for College Enrollment) Program: An Intervention to Promote College Application and Enrollment Among Urban Youth — This project is a random assignment impact evaluation of a relatively low-cost demonstration program that seeks to increase college going among inner-city youth in the Los Angeles Unified School District.

Amount: \$1,495,657

Period of Performance: 7/1/05-6/30/08

• Name of Institution: Indiana University Principal Investigator: Jonathan Plucker

Description: An Experimental Design Evaluation of Full-Day Kindergarten – This project will conduct a randomized controlled trial comparing the academic development of students who attend full-day kindergarten classes with those attending half-day kindergarten classes.

Amount: \$802,421

Period of Performance: 7/1/05-6/30/08

• Name of Institution: Vanderbilt University

Principal Investigator: Mark Lipsey

Description: Evaluation of Ohio's School Conflict Management Program — This research addresses the problem of aggressive behavior and interpersonal conflict in middle schools by evaluating the Ohio School Conflict Management Program.

Amount: \$1,340,989

Period of Performance: 9/1/05-8/31/08

• Name of Institution: Chesapeake Research Associates

Principal Investigator: Michael Puma

Description: An Evaluation of 'Writing Wings': Writing Instruction for Disadvantaged Elementary School Children – This project evaluates an innovative writing program for 3rd, 4th, and 5th graders, called Writing Wings (developed by the Success For All Foundation) that seeks to enhance teachers' skills through a combination of clear instructional goals, teacher modeling, and a cooperative writing process.

Amount: \$1,238,849

Period of Performance: 6/1/05-5/31/08

English Language Acquisition Evaluation

• Name of Institution: Johns Hopkins University

Description: Effects of Transitional Bilingual Education, Two-Way Bilingual, and Structured English Immersion Programs and the Literacy and Oracy of Spanish-Dominant Children – This evaluation will test enhanced versions of the Success for All structured English immersion, transitional bilingual and two-way bilingual programs in 15 high-poverty schools.

Amount: \$5,395,762

Period of Performance: 10/1/03-9/30/08

• Name of Institution: University of Houston

Principal Investigator: David Francis

Description: Optimizing Educational Outcomes for English Language Learners – This study will evaluate enhanced versions of structured English immersion and transitional bilingual education programs that differ in the amount of Spanish language used for instruction, compared to typical, existing programs.

Amount: \$8,093,384

Period of Performance: 10/1/03-9/30/08

• Name of Institution: Texas A&M Research Foundation

Description: Project English Language Literacy Acquisition – This study will evaluate enhanced versions of structured English immersion and transitional bilingual education programs compared to existing programs that are already in place. The enhanced versions include the use of additional strategies in intensive English, professional development, and parent training.

Amount: \$6,762,115

Period of Performance: 10/1/03-9/30/08

Unsolicited Proposals

• Name of Institution: Educational Testing Service

Principal Investigator: Laura Goe

Description: A Scientifically Based Analysis of Reading Items and Their Alignment with NRP Domains - IES awarded a grant to ETS in 2005 to examine the alignment of Praxis reading items and the National Reading Panel findings. The work involves convening panels of reading experts to identify existing Praxis reading items that are aligned with the NRP domains. The end results will be a set of Praxis assessment items that measure reading content and/or content pedagogy relevant to the elementary school level that reading experts have judged to be aligned with the NRP report and a set of empirical data that speaks to Praxis test takers' understanding of scientifically based reading from historical Praxis data on the items deemed to be aligned with the NRP report by the experts. A report is due in spring 2007.

Amount: \$272,408

Period of Performance: 6/10/05-12/29/06

• Name of Institution: National Conference of State Legislatures

Principal Investigator: Julie Bell

Description: Improving Outcomes for Students: Linking Research and Policy — Under this grant, NCSL will work closely with the U.S. Department of Education's Institute of Education Sciences to provide state legislators and key staff opportunities to (a) learn about findings from rigorous research on key education topics, (b) develop an understanding of how new policies and programs can be implemented in ways that allow evaluation of the impact of the policies and programs, (c) acquire knowledge about assessments, and (d) consider ways of applying this new knowledge to policy issues in their states.

Amount: \$1,276,952

Period of Performance: 9/1/06-8/31/10

National Center for Special Education Research (NCSER)

NCSER carries out programs of special education research primarily through grants.

Assessment for Accountability

Name of Institution: Educational Testing Service
 Principal Investigator: Cara Cahalan-Laitusis

Description: National Accessible Reading Assessment Projects: Research and Development for Students with Visual Impairments - Students with visual impairments present an ongoing challenge in large-scale assessments of reading proficiency, and issues persist concerning the valid assessment of reading with this population, particularly when some type of technology-assisted reading (e.g. text to speech) is involved. The purpose of this project is to: (a) examine the psychometric properties of state assessments for students with visual impairments, (b) conduct research on the development of an alternate assessment of technology-assisted reading for students with visual impairments, and (c) conduct a field test to examine the validity and reliability of both an accessible reading assessment and the alternate assessment of technology-assisted reading that includes students with visual impairments.

Amount: \$1,992,629

Period of Performance: 7/1/06-6/30/11

Early Intervention, Early Childhood Special Education, and Assessment

• Name of Institution: San Diego State University Principal Investigator: Vera Gutierrez-Clellen Description: Vocabulary, Oral Language, and Academic Readiness (VOLAR) – A Language Intervention for Latino Preschool English Language

Learners with Language Disorders – The purpose of this project is to develop and evaluate the potential efficacy of VOLAR for preschool Spanish-speaking children with language disorders within the preschool curriculum. The VOLAR program was designed to evaluate whether a focused and direct vocabulary and oral language instruction facilitates academic readiness (i.e., vocabulary, oral language, phonological awareness, cognitive, and socioemotional outcomes) in English Language Learners (ELLs) with language disorders compared to their peers with language disorders who do not receive the VOLAR intervention. In addition, the effects of the VOLAR intervention will be compared across bilingual and English-only modalities to determine whether the intervention presented in a bilingual modality (BIVOLAR) leads to greater improvements in vocabulary, oral language, and academic readiness than the VOLAR intervention presented in English only (EVOLAR).

Amount: \$1,425,540

Period of Performance: 6/1/06-5/31/09

Name of Institution: Georgia State University
 Principal Investigator: Amy Lederberg

Description: Improving Deaf Preschoolers' Literacy Skills - The purpose of this study is to develop and obtain preliminary evidence on the efficacy of a curriculum designed to foster emergent literacy skills in deaf and hard of hearing preschoolers. Most deaf and hard of hearing students do not progress beyond a fourth grade reading level by the time they leave high school. However, recent advances in amplification, early identification, and reading research has significant potential to improve literacy curriculum for this population as well as reading outcomes. Specifically, the researchers will examine what instructional strategies and degree of individualization will improve literacy outcomes taking into account recent advances relevant to deaf and hard of hearing students.

Amount: \$1,468,299

Period of Performance: 7/1/06-6/30/09

• Name of Institution: Arizona State University Principal Investigator: M. Jeanne Wilcox

Description: *The Development and Efficacy* of a Curriculum-Based Language and Early Literacy Intervention for Preschool Children with *Developmental Disabilities* – The purposes of the proposed investigation are to (a) determine the efficacy of a language and early literacy curriculum (Trophies Pre-K) adapted for use with preschool children with developmental disabilities, (b) to evaluate the extent to which the addition of an explicit oral language teaching protocol (EOLT) further enhances children's gains in oral language, pre-reading, and pre-writing skills, and (c) to determine the intensity of intentional instruction required for all children to progress in the curriculum. Secondary purposes are to examine factors that influence children's response to the interventions, professional development and intervention fidelity, and the perceived value and feasibility of the interventions from the perspective of the preschool classroom personnel.

Amount: \$1,470,185

Period of Performance: 7/1/06-6/30/09

Name of Institution: Vanderbilt University
 Principal Investigator: Ann Kaiser

Description: *Improving Language and Literacy* Outcomes for Preschool Children at Highest Risk for Reading Problems – Language and early literacy skills are foundational to reading and school success. Effective early intervention during the preschool years for children at highest risk for school failure may improve their chances of learning to read and learning from reading in the early elementary school years. Children who have Individualized Education Programs (IEP), children with very low language skills, and children with low language skills and high problem behaviors who are also enrolled in Head Start are of high risk for later reading problems. The purpose of this project is to examine the differential effects of three approaches to improving language and literacy skills in these very high risk children enrolled in Head Start. These approaches are: (1) Opening the World of Learning (OWL); (2) OWL + Enhanced Milieu Teaching (EMT), and (3) Creative Curriculum (CC), a general curriculum model which is widely used in Head Start.

Amount: \$2,995,758

Period of Performance: 6/1/06-5/31/10

• Name of Institution: Florida State University

Principal Investigator: Christopher Lonigan

Description: A Randomized Trial of Preschool Instructional Strategies to Improve School Performance *and Reduce Use of Special Education* – The purpose of this project is to compare the value added impact of an intervention focusing explicitly on language, literacy, and cognitive skills, with an intervention explicitly focused on these skills plus self-regulation. Recent research supports the promise of targeted and research-based intervention for preschool age children in language, early literacy, and cognitive skills as a preventive tool to reduce the number of children in need of costly special education services in kindergarten and beyond. Research also suggests the potential need for an additional focus on developing cognitive and behavioral self-regulatory skills in preschool children. This research project is designed to further examine this relationship.

Amount: \$2,999,598

Period of Performance: 6/1/06-5/31/10

Name of Institution: Texas A&M University
 Principal Investigator: Deborah Simmons

Description: Project Early Reading Intervention – The purpose of this project is to evaluate the efficacy and study systematic variations of delivery intensity for the Early Reading Intervention (ERI), a commercial program that is designed for kindergarten children at risk of reading difficulty and used in more than 4,000 school districts in all 50 states. Also, the researchers intend to sample participating schools to capture a broad range of demographic diversity and to evaluate ERI's efficacy in sites distal to ERI developers.

Amount: \$2,885,628

Period of Performance: 6/1/06-5/31/10

• Name of Institution: University of Colorado at Denver

Principal Investigator: Phillip Strain

Description: LEAP-USA (Using Science-Based Approaches) – The purpose of this project is to assess the efficacy of LEAP (Learning Experiences, an Alternative Program for Preschoolers and their Parents)-USA in improving child (e.g., social behavior, cognitive development, and language development) and family outcomes (e.g. stress, insularity) for pre-school aged children identified with autism. LEAP is a comprehensive intervention that blends a behavioral approach with developmentally appropriate practices. Prior research has demonstrated LEAP reduces symptoms associated with autism and improves child outcomes but the model has not been evaluated using a randomized controlled trial. The researchers intend to examine the efficacy of LEAP when interventionists are provided different levels of training and support.

Amount: \$1,809,917

Period of Performance: 3/1/06-2/28/10

Individualized Education Programs

• Name of Institution: The State University of New York at Buffalo

Principal Investigator: Gregory Fabiano

Description: Enhancing Individual Education Plans for Children with ADHD Disorder Using a Daily Report Card — The purpose of this project is to develop and obtain preliminary evidence of the efficacy of an intervention designed to improve the practices of teachers of children with attention-deficit/hyperactivity disorder (ADHD) who have an Individualized Education Program (IEP) and academic and socioemotional outcomes of these children. The researchers will provide preliminary evidence of the efficacy of using a daily report card intervention (DRC), long used as an efficacious intervention for children with ADHD, as a means of linking the child's IEP goals and objectives to his/her daily functioning in the classroom environment.

Amount: \$732,436

Period of Performance: 7/1/06-6/30/08

• Name of Institution: University of Illinois

Principal Investigator: James Shriner

Description: *IEP Quality Improvement: Research and Development of Web-based Decision Support* — The purpose of this project is to develop and test a Web-based IEP Tutorial and decision-making support system (Tutorial) that will be linked to the Illinois State Board of Education's (ISBE) electronic IEP archiving system. The overall aim is to use the developed Web-based informational and decision making resources to allow IEP teams to craft better quality IEPs that function to support higher standards-based achievement.

Amount: \$1,465,699

Period of Performance: 8/15/06-8/14/09

Name of Institution: University of Hawaii
 Principal Investigator: Robert Stodden

Description: *I in the IEP* – The participation of those of indigenous heritage in the Individualized Education Program (IEP) process is often less than optimal because the IEP process is conducted in a way that lacks cultural sensitivity, students and families lack an understanding of the IEP process and its potential benefits, and/or there are crosscultural communication problems. The purpose of this project is to develop and obtain preliminary evidence of the efficacy of two interventions designed to equip educators, administrators, and parents with the necessary tools to support students with disabilities from indigenous cultures to engage with and benefit from their own IEP meetings. One intervention focuses on the professional development of cultural competence on the part of education practitioners while the other intervention employs a "cultural brokering" approach to supporting indigenous families to be knowledgeable and motivated partners in the IEP process, both with the goal of promoting the active

Amount: \$1,500,000

Period of Performance: 7/1/06-6/30/09

participation of indigenous students themselves.

Language and Vocabulary Development

Name of Institution: University of Connecticut
 Principal Investigator: Michael Coyne

Description: Project IVI: Intensifying Vocabulary Intervention for Kindergarten Students at Risk of Learning Disabilities — The purpose of Project IVI is to develop, refine, and evaluate vocabulary intervention strategies for kindergarten students at significant risk of learning disabilities. The research team will draw on validated principles of instructional design and delivery to intensify vocabulary instruction and to optimize its effectiveness with kindergarten students most at risk of learning disabilities.

Amount: \$884,306

Period of Performance: 8/1/06-7/31/09

Name of Institution: Florida State University
 Principal Investigator: Howard Goldstein

Description: *Project ILIAD: Independent Lexical Instruction and Development* – The purpose of Project ILIAD (Independent Lexical Instruction and Development) is to develop a comprehensive intervention program of vocabulary instruction that can be applied reliably and effectively in grades K-3. This research will compare a focus on vocabulary enhancement versus a focus on phonics as a means of preventing and intervening with children with and at-risk for delays in reading, language, and academic development. These 15-20-minute daily interventions supplement ongoing literacy instruction in the classroom.

Amount: \$1,338,773

Period of Performance: 5/1/06-4/30/09

• Name of Institution: University of Kansas

Principal Investigator: Diane Loeb

Description: Development of a Culturally Based Language and Vocabulary Intervention for Elementary School Children with Language Impairments and Children who are at High Risk for Developing Learning Disabilities – The purpose of this study is to develop an intervention program that is more culturally relevant and improves the vocabulary, narrative, phonological awareness, and reading skills of children from different cultures and for children from low socioeconomic homes. In a recent clinical trial that assessed the potential efficacy of school-age language intervention programs, substantially fewer gains were found for children from low socioeconomic homes and children who were African American, Latino, or Native American when compared to children who were Caucasian and from families of high socioeconomic status.

Amount: \$770,621

Period of Performance: 3/1/06-2/29/08

Mathematics and Science

Name of Institution: Mississippi State University
 Principal Investigator: Brenda Cavenaugh

Description: The Effects of School Climate and Supports on Mathematics Achievements for Students with Visual Impairments - The purpose of this project is to examine the effects of school climate, including policies and practices related to teacher supports, student supports, and support for family involvement, and other contextual and individual factors on mathematics achievement for elementary and middle school students with visual impairments. Students with visual impairments tend to lag behind their sighted peers in math achievement, and there are persistent questions about the best approaches for developing math proficiency among this population. The majority of students with visual impairments are taught in regular schools and classrooms. Many schoolrelated variables have been found to impact the achievement of students in general, but research has not been conducted to determine the effects of these variables on the achievement of students with visual impairments. This study is intended to address this research need.

Amount: \$257,170

Period of Performance: 10/1/06-9/30/08

Reading and Writing

Name of Institution: Vanderbilt University
 Principal Investigator: Donald Compton

Description: Response-To-Intervention as an Approach to Preventing and Identifying Learning Disabilities in Reading — The purpose of this project is to address key measurement issues associated with the response-to-intervention (RTI) process: Who should enter the RTI process? How does one determine whether effective Tier 2 intervention has been conducted? What is a valid and practical method of monitoring responsiveness to Tier 2 instruction? What is a valid definition of "nonresponsiveness" (i.e., reading disabled)?

Amount: \$1,591,071

Period of Performance: 9/1/06-8/31/10

Name of Institution: Georgia State University
 Principal Investigator: Robin Morris

Description: Multiple-Component Remediation for Struggling Middle School Readers — The purpose of this project is to evaluate the efficacy of two multiple component reading interventions for middle school students with reading disabilities. Both programs address multiple sources of dysfluent reading, impaired reading comprehension, decoding, reading rate, and comprehension problems. However, the programs differ in that one includes a fluency component and the other includes a comprehension intervention component.

Amount: \$2,882,630

Period of Performance: 6/1/06-5/31/10

 Name of Institution: Teachers College, Columbia University

Principal Investigator: Joanna Williams

Description: An intervention to enhance expository text comprehension via text structure instruction for primary-grade at-risk students — The purpose of this project is to develop and evaluate an intervention to improve the expository text comprehension of second-grade students at high risk for reading disabilities. Research on the comprehension

of narrative text has demonstrated that at-risk students, when given appropriate instruction, respond well and show improvement. However, much less research has been conducted on expository text, which is necessary for success in school, the workplace, and the community.

Amount: \$1,117,665

Period of Performance: 6/1/06-5/31/09

Secondary and Post-Secondary Outcomes

• Name of Institution: University of Wisconsin

Principal Investigator: Erik Carter

Description: Project Summer: Improving Summer Employment and Community Inclusion Outcomes for Transition-Age Youth with Disabilities – The purpose of Project Summer is to develop a practical, but effective, intervention designed to improve transition services for youth with disabilities and maximize engagement in summer employment and other transition-related activities. While research on transition services for youth typically has focused on educational and vocational programming provided during the academic school year, little is known about the employment and community activities of youth with disabilities during the summer. Summer offers an opportune time to address transition-related goals in community context, employment in particular, circumventing many of the limitations associated with addressing these goals during the school year. Unfortunately, empirically validated strategies aimed specifically at promoting the summer employment of youth with disabilities remain absent from the literature.

Amount: \$915,346

Period of Performance: 7/1/06-6/30/09

• Name of Institution: Portland State University

Principal Investigator: Laurie Powers

Description: Project Success: Improving the Educational Outcomes of Youth with Disabilities

in Foster Care – The purpose of Project Success is to implement the TAKE CHARGE model for enhancing the self-determination of foster youth with disabilities and to systematically evaluate the efficacy of the model in improving educational outcomes. Statistics reveal that approximately 40 percent of foster care youth have a disability, and that youth in foster care are three times more likely to be referred for special education services. Educators are frequently unaware of the unique issues facing special education students in foster care, and similarly, the disability status/special education needs of foster youth are unknown within the child welfare system. Furthermore, research has confirmed that foster youth with disabilities lag behind their peers in school, are suffering educationally, and are at significant risk for academic failure.

Amount: \$1,816,782

Period of Performance: 6/1/06-5/31/10

Serious Behavior Disorders

Name of Institution: Vanderbilt University
 Principal Investigator: Kathleen Lane

Description: The Effects of Strategy and Self-Regulation Instruction on Students' Writing Performance and Behavior: A Preventative Approach (Project WRITE) – The purpose of Project WRITE is to determine the impact of a modified Self-Regulated Strategy Development (SRSD) on the writing and classroom behavior of students at highrisk for Serious Behavior Disorders (SBD). Prior research has demonstrated that SRSD improves the writing performance of students with learning disabilities and other struggling writers, but its impact on the writing performance and collateral impacts on behavior for students at high-risk for SBD is not determined. The development of SRSD is particularly important for students at high-risk for SBD because they often require secondary interventions to supplement school-wide implementation of positive behavior supports (PBS).

Amount: \$1,431,137

Period of Performance: 9/1/06-8/31/09

Name of Institution: Idaho State University
 Principal Investigator: Stephanie Peterson

Description: Concurrent Schedules of Reinforcement and Adjusting Demand Requirements: Effects on Communication, Compliance, and Problem *Behavior* – The purpose of this project is to develop an intervention for escape-motivated problem behavior. The intervention will teach children to request breaks from demanding tasks and to comply with task requests. Although several interventions (e.g., extinction, differential reinforcement of alternate behavior, functional communication training, demand fading) for escape-motivated problem behavior in individuals with disabilities already exist, each has weaknesses that can limit its utility. An intervention strategy that capitalizes on the strengths of these interventions, but minimizes their weaknesses, is needed.

Amount: \$515,385

Period of Performance: 8/1/06-7/31/09

• Name of Institution: The State University of New York-Buffalo

Principal Investigator: William Pelham, Jr.

Description: Adaptive Treatments for Children with ADHD – The purpose of this study is to investigate the efficacy of two forms of ADHD treatment: medication and behavioral intervention. Unlike previous research, this study proposes to examine the effect of sequential implementation of the two forms of ADHD treatment on students unresponsive to the primary intervention. By using sequential implementation of either medication followed by behavioral intervention or behavioral intervention followed by medication, students with ADHD will receive the lowest effective dosage of medication and/or intensity of behavioral intervention; therefore, costs will be reduced and students will not be subjected to unnecessary interventions.

Amount: \$2,711,468

Period of Performance: 4/1/06-3/31/10

Name of Institution: University of Florida
 Principal Investigator: Stephen Smith
 Description: Universal Cognitive-Behavioral

Intervention for Elementary Students to Reduce Disruptive/Aggressive Behavior - The purpose of this project is to determine whether a cognitivebehavioral problem-solving curriculum focused on anger management and implemented by school personnel in classroom settings improves student behavioral outcomes related to positive social adjustment and school success. Researchers have found that teaching cognitive strategies through cognitive-behavioral intervention can decrease student disruption/aggression and strengthen pro-social behavior. Many such interventions incorporate components difficult for typical schools to sustain without external support. Thus, there is a need to determine whether a feasible, sustainable, cost-effective intervention can effectively alter negative behaviors and thereby improve social outcomes for students at risk.

Amount: \$1,625,469

Period of Performance: 8/1/06-7/31/10

Name of Institution: SRI International
 Principal Investigator: Mary Wagner

Description: Early, Evidence-Based Intervention For Externalizing Behavior Problems in School: From Efficacy to Effectiveness of the First Step to Success Program - The First Step to Success Program is a school-home intervention with substantial evidence for its efficacy in achieving secondary prevention goals and positive outcomes for behaviorally at-risk children in the primary grades. It is packaged for dissemination, is evidence-based, and has been implemented successfully by a number of districts across the country during the past decade. The purpose of this project is to evaluate the effectiveness of First Step to Success under scaled-up conditions. Solid evidence is needed that scaled-up interventions can improve the behavior and academic performance of children with serious behavior problems early in their schooling, thereby setting them on a more positive educational trajectory.

Amount: \$5,857,960

Period of Performance: 3/1/06-2/28/11

• Name of Institution: University of Connecticut Principal Investigator: Sandra Chafouleas **Description:** Project VIABLE: Validation of Instruments for Assessing Behavior Longitudinally and Efficiently - Empirical attention to the development and validation of viable formative measures of social behavior is essential if we are to effectively evaluate the success of positive behavior interventions put in place to address challenging student behavior. The purpose of this project is to develop and validate the Direct Behavior Rating (DBR) for use in student progress monitoring that is also feasible for use in applied settings. Thus, the goal of Project VIABLE is to develop the DBR for use in progress monitoring through three phases of investigation including (1) foundations of measurement, (2) decision making and validity, and (3) feasibility.

Amount: \$1,496,507

Period of Performance: 6/1/06-5/31/10

Name of Institution: University of Georgia
 Principal Investigator: Randy Kamphaus

Description: Development and Validation of a Screener for Behavioral and Emotional Problems in Elementary and Middle School — The purpose of this project is to develop and validate a five-minute screening assessment to be used by teachers to identify elementary and middle school children with behavioral or emotional problems that predispose them to academic failure. The study will build upon pilot research to develop a screener from the longer form of the Behavioral Assessment System for Children, second edition (BASC-2; Reynolds & Kamphaus, 2004), currently used widely in the United States and abroad.

Amount: \$941,141

Period of Performance: 5/1/06-4/30/10

Unsolicited Proposals

Name of Institution: University of California
 Principal Investigator: William R. Shadish
 Description: Meta-Analysis of Single-Subject
 Designs – The purpose of this project is to develop meta-analytic methods for synthesizing one

kind of nonrandomized experiment, the singlesubject design. These designs are widely used in educational research settings (Kazdin, 2003; Kratochwill & Levin, 1992), and are among the strongest nonrandomized experiments (Shadish, Cook & Campbell, 2002). Although meta-analysis has been applied comparatively rarely to these designs, sufficient literature exists to believe that the time is propitious for further development of this approach.

Amount: \$598,744

Period of Performance: 9/1/05-8/31/08

Name of Institution: University of Texas-Austin
 Principal Investigator: S. Natasha Beretvas

Description: Methodological Investigation of Effect Size Estimates Used in Meta-Analyses of Single-Case Research Design Results – The purpose of this project is to (1) examine the methods utilized for single-case design meta-analyses to identify effective effect size (ES) descriptors, (2) conduct a meta-analytic study of school-based treatments for children with autism spectrum disorders (ASD), and (3) perform a Monte Carlo simulation to compare the performance of ES estimates designed to describe a treatment's effectiveness with interrupted time series data from single-n AB designed studies.

Amount: \$167,758

Period of Performance: 1/15/06-12/31/06

 Name of Institution: University of Wisconsin-Madison

Principal Investigator: Thomas Kratochwill **Co-Principal Investigator:** Joel Levin (University of Arizona)

Description: Single-Case Research Design and Analysis: Applications in Educational Intervention Research – The purpose of this project is to review the current state of single-case research design and data analysis as applied to educational intervention research. The review will culminate in recommendations to single-case researchers to adopt more scientifically rigorous experimental designs and statistical analyses, thereby enhancing the validity of the researchers' conclusions. In addition, the researchers will consider methods for

synthesizing the research literature from single-case research designs including traditional literature reviews and meta-analyses.

Amount: \$600,000

Period of Performance: 10/1/06-9/30/09

Contracts

Name of Organization: SRI International
 Principal Investigator: Mary Wagner

Description: The National Longitudinal Transition Study-2 (NLTS2) involves a large, nationally representative sample of 11,276 special education students, ages 13 to 16 and in at least 7th grade at the outset of the study. The four age cohorts will be followed over a nine-year period until the oldest cohort of students is age 24. The purpose of the study is to provide a national picture of the experiences and achievements of students in special education during high school and as they transition from high school to adult life. Data are collected on students' individual and household characteristics; characteristics of their schools, school programs, and classroom experiences; secondary school performance and outcomes; adult services and supports; and early adult outcomes in employment, education, independence, and social domains. NLTS2 is designed with many of the same features of the original National Longitudinal Transition Study (1987-93) in order to identify the nature and extent of changes in the special education services provided to high school students and in their postschool achievement in the last decade.

Amount: \$19,343,221

Period of Performance: 1/2/01-12/31/07

Name of Organization: Westat, Inc.
 Principal Investigator: Elaine Carlson

Description: *Pre-Elementary Education Longitudinal Study (PEELS)* involves a nationally representative sample of 3,100 children with disabilities who are receiving preschool special education services in a variety of settings. This six-year study examines the preschool and

early elementary school experiences of children with disabilities and their performance over time. Specifically, the study will describe the characteristics of children receiving preschool special education, children's transitions from early intervention to preschool and preschool to kindergarten, and children's educational experiences and outcomes (including academic achievement, social development, and participation in the classroom and community).

Amount: \$9,864,224

Period of Performance: 9/30/04-9/29/08

Name of Organization: SRI International

Principal Investigator: Mary Wagner

Description: National Behavior Research Coordination Center (NBRCC) is coordinating data from behavior research centers (BRCs) at four leading universities. The BRCs are investigating the efficacy of evidence-based interventions with students who exhibit severe behavior problems in grades one to three. With SRI leadership and in partnership with the four BRCs, the NBRCC will produce and actively disseminate new knowledge for the special education and mental health fields regarding "what works" in improving the behavior and, through it, the academic performance of children and youth with severe behavior problems. Children with emotional/behavioral disorders have among the worst outcomes of all groups of children with disabilities.

Amount: \$1,320,026

Period of Performance: 9/30/04-9/29/09

Name of Organization: Optimal Solutions Group, LLC

Description: Logistical and administrative support for NCSER.

Amount: \$3,000,000

Period of Performance: 8/2/06-8/1/07

Interagency Agreements

• Name of Organization: National Institute of Child Health and Human Development

Description: Interagency agreement to support research on the development of outcome measures for young children.

Amount: \$500,000

Period of Performance: 9/1/05-8/28/06

• Name of Organization: National Institute of Child Health and Human Development

Description: Interagency agreement to support research on the development of outcome measures for young children.

Amount: \$500,000

Period of Performance: 8/29/06-8/28/07

• Name of Organization: National Institute of Child Health and Human Development

Description: Interagency agreement to support research on the effects of exposure to violence on children with disabilities.

Amount: \$100,000

Period of Performance: 9/27/05-9/26/06

• Name of Organization: National Institute of Child Health and Human Development

Description: Interagency agreement to support research on the effects of exposure to violence on children with disabilities.

Amount: \$100,000

Period of Performance: 9/27/06-9/26/07

Name of Organization: National Institute of Child Health and Human Development

Description: Interagency agreement to support research grants in three areas: adolescent literacy; effectiveness of early childhood programs, curricula and interventions in promoting school readiness; and, mathematics cognition and specific learning

disabilities. Includes \$1.0 million from ED's National Institute on Disability and Rehabilitation Research.

Amount: \$3,000,000

Period of Performance: 9/27/05-9/26/06

• Name of Organization: National Institute of Child Health and Human Development

Description: Interagency agreement to support research grants in three areas: adolescent literacy; effectiveness of early childhood programs, curricula and interventions in promoting school readiness; and, mathematics cognition and specific learning disabilities. Includes \$1.0 million from ED's National Institute on Disability and Rehabilitation Research.

Amount: \$3,000,000

Period of Performance: 9/27/06-9/26/07

• Name of Organization: National Institute of Mental Health

Description: Interagency agreement to support an evaluation of a family/school intervention for attention deficit hyperactivity disorder (ADHD).

Amount: \$100,000

Period of Performance: 9/1/05-8/7/06

• Name of Organization: National Institute of Mental Health

Description: Interagency agreement to support an evaluation of a family/school intervention for attention deficit hyperactivity disorder (ADHD).

Amount: \$100,000

Period of Performance: 9/27/06-9/26/07